Clinical Lecture
ON
CHRONIC JOINT DISEASE.

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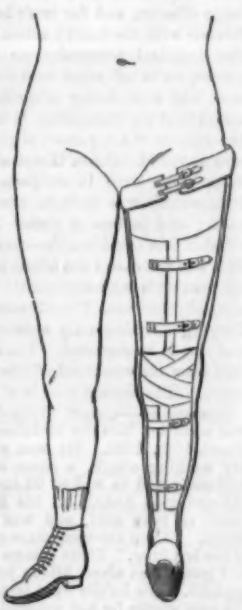
GENTLEMEN,—When last I addressed you on the subject of joint disease, I called your attention to a certain mode of treating acute synovitis by means of emptying the distended sac. I now wish to say a few words to you concerning the management of chronic articular disease.

In its earlier phases, while cure with perfect conservation of movement is possible, that termination should always be aimed at, and may very often be attained. The forms of malady which are most common, and to which I now more particularly refer, are those which attack children from one year to twelve or even fourteen years of age, and which very generally are combined with a strumous or scrofulous habit of body. Now, please pay especial attention to this. These diseases, although arising in strumous children, are very rarely indeed tubercular in origin. Struma is a certain habit of body, a certain faulty method of forming and nourishing its tissues, which, thus produced and sustained, are not diseased, but are apt to respond to any slight irritation by sluggish and prolonged inflammations, the immediate products of which have little or no tendency to higher development, but rather to certain forms of degeneration—suppurative, fatty, caseous, and tubercular. In certain parts of the body tubercle appears with great facility, therefore very frequently; in other parts with very great difficulty; and among these parts the synovial membrane is pre-eminent. I would not give you to understand that in joints long the subject of chronic strumous inflammation tubercle is never to be found; but when so found, it is tubercle not of synovial membrane, but of old inflammatory products. Contrast this with the mode of tuberculosis in internal organs, as, for instance, lungs; in them tubercle appears simultaneously, or almost simultaneously, with some very slight inflammatory change of tissue; it is impossible to say whether the deposit of some minute tubercular element is or is not the origin of the disease. Such a state of things is never found in a synovial membane nor in the joint end of a bone; in those parts tubercle, if it appear at all, is a late production—the terminal, and not the initial point of a morbid process.[1] These distinctions are not mere pedantic hair-splitting; they underlie, in fact, the question whether treatment of strumous joint disease is of any great value; for if such disease were the result of tubercle, the assertion, made a minute or two ago, that cure may be often attained, would be false. Were we not here in England restricted from the most valuable of all modes of pathological research, I believe I should be able to put this question at rest; as it is I must limit myself to examining certain experiments made in Germany with tuberculous materials.

Dr. Schüller of Greifswald injected such matters into the lungs of twenty-four animals (dogs and rabbits), and at the same time, or very shortly after, severely injured the right knee-joint by blows with a mallet. Of these injured joints only six showed some spots, the most characteristic of which are described as "perhaps initial tubercle," and some as "heaped-up epithelioid cells," and "colossal giant cells," and this although in nearly all these animals the internal organs were thickly beset with tubercle. There is, in fact, no doubt that these creatures were thoroughly tuberculised; yet with such difficulty do joint structures admit of tuberculisation, that no instance of typically characteristic tubercle could be found in the injured joints. But more than this, although several of these animals died of what might almost be called tubercular intoxication, not a single uninjured joint out of the 264[2] showed any trace of tubercular affection. Whence we must conclude that a tubercular state of body does not produce joint disease—in other words, the earlier phases of chronic joint disease are not tubercular. Therefore, gentlemen, we will take it that the cases I show you are strumous but not tuberculous, and therefore we may assume that under favourable circumstances they are curable. It is now my business to tell you how to make the circumstances favourable and how to utilise them for your patient's benefit.

First, then, you will have to make out whether the malady originates in the bone or the synovial membrane. It is in the first stage of joint disease quite easy to do so, and I have again and again explained to you how this is to be done. We need not now occupy our time on that subject; though, as you will shortly see, several important points of treatment depend on the diagnosis. In either bone or synovial malady you have to do with a remarkably obstinate disease, whose sluggish character depends upon a state of bodily malnutrition which we call struma, and one of the first essentials towards improving this condition is to abstain from confining the children to one room or ward, or still more to bed, but to give them plenty of fresh air and exercise. When the affected joint is one of the upper extremity this is easy; but if it be one of the lower some difficulties present themselves, for we must so manage that, while moving about, the diseased joint is kept at complete rest, and that no weight be thrown on the joint surface. A large number of splints to carry out these indications have been invented. I have used at different times Taylor's, Sayre's, Thomas's, and others, but the apparatus which above all others I prefer is one to which my attention was called by Dr. von Wahl of Dorpat, and which was invented by Dr. Dumbrowski of that university. It is thus made for the knee: To the knee segments above and below the joint poroplastic felt or leather is carefully moulded by hand and bandage; while these are hardening the sound limb is placed with its posterior aspect on a piece of paper, and a tracing is made of its inner and outer aspects. The circumference of the top of the thigh is taken in an oblique direction—i.e., from the perineum to a point a little above the great trochanter. Now the splint-like moulds are removed, and the rest is done by the instrument-maker. He bends two flat bars of steel or of iron (plate gauge No. 10 or 16), about three-quarters of an inch broad, to the shape of the tracings, only with a larger divergence at the knee, and taking care that they are about two or two and a half inches longer than the limb. These are to be riveted to the poroplastic or leather, which are likewise to be provided with straps. The upper end of the bars are made fast to an ischio-iliac ring, well padded and provided in front with a hinge and flap. Their lower ends are fastened by a pivot joint to a sufficiently large plate that underlies the sole. If instead of the knee the ankle is diseased, the splint is to be modified thus. A poroplastic socket is moulded on the foot and rendered motionless by a strap riveted to the metal uprights, while hinges are introduced in the iron opposite the knee, so as to permit free movement of that joint.



Now, to put on this appliance, the felt or leather sockets are to be softened again, the flap arrangement of the ischio-iliac ring is to be opened, the limb is easily introduced, the various straps are tightened, and the patient left at rest till

[1] Neither must we take every non-vascular spot containing one or two giant cells in the midst of old granulation tissue to be tubercle; certain points are, by the very mode in which that tissue is formed, excluded from the direct area of circulation; and wherever from such cause nutrition becomes defective, giant cells are apt to form, and these in their growth push aside and somewhat flatten the surrounding cells.

[2] That is, reckoning three joints to each of the ninety-six limbs and subtracting twenty-four for the injured right knee of each animal.

the sockets have hardened.[2] In a day or two a high shoe is to be provided for the sound limb so as to make it of the same length as the splint, and the patient must be taught to walk slowly at first, and probably with crutches. These he soon learns to discard, and to walk with surprising facility and comfort, and with arms perfectly free for any occupation or amusement. Observe that no motion can possibly take place at the joint, nor can any pressure of the body weight fall upon it; in fact, the diseased joint is at perfect rest, while the remainder of the body is in good exercise. Moreover, the surface of the articulation is uncovered, permitting any desirable treatment; but I see that I must defer these considerations to another very early opportunity, when I shall again refer to the subject.

ENDOCARDITIS COMPLICATED BY TUBERCULAR PLEURISY (WITH EFFUSION).[1]

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IT would be a bold assertion to make that pleurisy does not commonly complicate chronic valvular disease of the heart, and I am not prepared to make it. The case is, however, I think, different with pleurisies which lead to large effusion, and far more important, because of the interference with the heart's action they produce. Setting aside the dropsical accumulations of fluid which occur in the pleura, as in all other serous sacs, in advanced cardiac disease, and considering *pleuritic* effusions only, I can safely assert that the association is rare. For on glancing through the records of forty cases of pleurisy with effusion under my care at the Middlesex Hospital during the past seven years, three only were in subjects of chronic cardiac disease. Paracentesis was thought necessary in twenty-two of these cases; and in two of these—i.e., cases in which mostly the effusion was considerable—was there heart disease present. One was the case I am about to relate. The other was in an old man with thickened aortic and mitral valves and general arterial atheroma. The effusion in his case was hæmorrhagic. Tapping was absolutely necessary for the relief of dyspnœa, and had to be repeated. The fluid became purulent, and he died from the combined effects of exhaustion and his cardiac lesion. The present case is of a different class.

Samuel S——, aged thirty-four, single, a house painter, was admitted into the Middlesex Hospital under my care on March 10th, 1884. He was complaining of a troublesome dry hacking cough, a sense of tightness in the chest and coldness; and he looked ill and worn. He said that he had enjoyed good health all his life, except that he was very liable to take cold, and was frequently troubled with a cough. When thirteen years of age he had "inflammation of the left lung." There was no family history of tubercle. He had gonorrhœa about fifteen years ago, but never contracted syphilis. His habits were temperate. During the whole of the past winter he had suffered from a cough, which a month ago became worse, and after one paroxysm he spat up a small quantity (about two ounces) of blood. At the same time he had been troubled with night sweatings. He seemed to lose sensation on the left side; he experienced a dull heavy feeling, "like a piece of wood" he expressed it, varied by attacks of sharp cutting pain over the lower ribs on exposure to cold. He had further been growing progressively weaker and losing flesh. He was a man of sallow complexion, unhealthy aspect, moist skin, and ill-nourished. Examination of the chest revealed a marked difference between the two sides. Thus, the left front was decidedly flatter than the right, which appeared abnormally bulged; and the inspiratory expansion was much less on the left than on the right. On percussion over the left front, resonance was impaired, merging in the axilla to absolute dulness. The right front and axilla were fully resonant. There was no appreciable difference, however, in the degree of vocal fremitus. The breathing was harsh, with prolonged expiration over both fronts and in right axilla; but in left axilla it was weak. A few scattered rhonchi were also audible. Over the back the contrast was more marked, the left being absolutely dull throughout and the right resonant. The dulness did not vary with position. Vocal fremitus was wholly absent over the lower half of the left back. The breath sounds were harsh, expiratory murmur prolonged and masked by sonoro-sibilant rhonchi over the right back; faint but somewhat bronchial in character over the left back, particularly at the angle of the scapula, where the breathing was intensely bronchial. At this spot also the vocal resonance was ægophonic. The heart's apex beat could not be defined, but a faint wave of pulsation was visible at the epigastrium. The carotid and subclavian arteries pulsated violently, and the radial pulse was collapsing but regular (84). The area of cardiac dulness began above at the third interspace, and did not extend beyond the left border of the sternum; outwards it merged in the axillary dulness. At the apex a soft systolic bruit was audible. At the second right (or aortic) cartilage was heard a well-marked blowing systolic bruit and a musical diastolic murmur. Both these murmurs were traceable down the sternum; and the systolic one could be heard in the carotids, where no second sound was audible. The pulmonary second sound was plainly developed at the third left cartilage and at the apex. The abdominal walls were tense. The hepatic area of dulness was normal, and the splenic margin could not be felt. The urine was high-coloured, turbid, with copious deposit of lithates; sp. gr. 1031, free from sugar or albumen. The expectoration was scanty and mucoid. The temperature ranged from 100·2° to 100·8° (evening).

The diagnosis was: aortic valvular disease, causing both obstruction and regurgitation, and, from entire absence of second sound in the carotids, probably of considerable degree; slight mitral regurgitation, possibly secondary to the aortic disease; pleurisy, with effusion on the left side of some standing, and consequent compression of lung; compensatory emphysema and slight bronchial catarrh on the right side. An exploratory puncture on the 11th was made with a hypodermic syringe, and the presence of a serous effusion in the left pleura was confirmed. The temperature during the next two days was above the normal, and from 1° to 2° higher in the evening than the morning. On the 12th breathing was rather laboured (30); pulse 90, regular; and he complained of being faint. He had been prescribed a mixture containing iodide of potassium, ipecacuanha, and squill. On the 13th, as he again showed a tendency to syncope, and the physical signs indicated no diminution in the effusion, it was decided to withdraw the fluid, and in order that this might be done with the least amount of disturbance to the heart, one of Southey's fine trocars was introduced into the chest in the sixth interspace, mid-axilla, and the fluid allowed to flow through a fine tube. By this means sixty-seven ounces of rather high-coloured serum were withdrawn in the space of two hours and forty minutes, when the flow ceased. He was greatly relieved by the tapping, having complained much during the previous night of the pain and pressure in the left side, which now ceased to trouble him. The next day it was noted that although the cardiac sounds were louder and the murmurs unaltered, the apex beat, hitherto obscured, was appreciable in the fifth interspace, an inch and a quarter below and one inch within the nipple. Over the left back resonance had returned as far as the angle of the scapula, but below that point and in the axilla dulness persisted. The ægophony had disappeared, but bronchial breathing remained, and in addition some fine friction sounds could be detected in the axilla. The breathing was easier and the cough lower. The skin was moist, and he still had some sweating at night; the temperature still maintained a level of about 99° in the morning and 101° at night. (See Chart.)

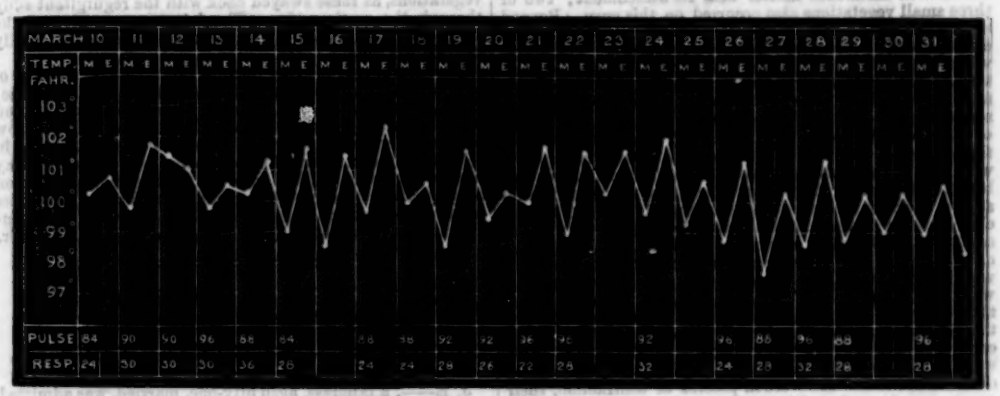
There is no need to enter fully into the daily detail of the case, which remained for some time in a stationary condition, the signs pointing to a certain amount of reaccumulation of fluid, the dulness and bronchial breathing never clearing up, and the sense of constriction being again complained of. In fact, there was no evidence of re-expansion of the lung, but rather of a slowly continuous contraction; for on the 25th it was noted that the gastric resonance reached as high as the seventh rib in the axilla, the epigastric pulsation of the heart was also plain, and the apex beat had undergone no change in position. Vocal fremitus had slightly returned over the left back, and the friction rales had mostly gone. Moreover, his cough remained very troublesome, and had assumed a clanging

[2] If the joint have become bent, it must be straightened after the manner to be hereafter described.

[1] Read before the Cambridgeshire and Huntingdonshire Branch of the British Medical Association.

character. It was further noted that the systolic murmur at the aortic cartilage was followed by a sharp sound, the diastolic bruit being almost inaudible, but heard at the mid-sternum from the third to the fifth cartilages.

On April 3rd, in spite of inhalations and sedatives, the cough troubled him a great deal, and also the constriction across the chest. Examination failed to detect any additional signs, certainly nothing to suggest the presence of a deep-seated thoracic aneurysm, or other source of pressure on the air-passage exciting the cough. Dr. Finlay, who took charge of the ward later, made a laryngoscopic examination with a negative result. The temperature chart still showed the same character of continued pyrexia, but there was no appreciable increase in the loss of flesh. The friction sounds had returned, and were heard during the remainder of his stay in the hospital; at first fairly universal, they became gradually limited to the axillary region. It was to the persistence of this pleurisy that was attributable the stabbing pain in the left shoulder complained of from April 20th to the 23rd. On the 24th it was noted that over the left back there were still dulness and diminution of vocal fremitus; fine friction sounds were also audible. The breathing was no longer bronchial, but towards the left axilla it became harsh, with prolonged expiration. As to the cardiac signs, it was again observed that the diastolic bruit, which had lost its musical character, was best heard over the sternum, about the third cartilage. Also that the soft systolic bruit at the apex was conducted towards the axilla. He had now been on tonics for about a week, and he was allowed to get



up for a short time, and his diet was increased. Although he remained anæmic and sallow, and still complained at times of a dragging pain in the left chest, his general state so much improved that I sent him to a convalescent home. He left the hospital on May 15th, the dulness over the left lung, except at the apex and in front, not having altered, the breath-sounds remaining weak and distant, and friction being still audible. Vocal fremitus was increased over the left front, diminished at the back; but vocal resonance was there in excess. The cardiac condition was unaltered.

I may pause here in the record to explain the view that one was almost compelled to take from the inveteracy of the pleurisy and the accompanying pyrexia. In the first place, it was tolerably clear that the pleurisy had no connexion with the cardiac disease. When and how the valve mischief originated it was not possible to say, nor indeed could a date be positively affixed to the attack of pleurisy. At any rate, the onset of the latter must have dated back many months; and it was probably partly an increase in the effusion as well as his growing debility which led him to seek admission into the hospital. The fact that the lung did not re-expand to any marked extent after the removal of the fluid was confirmatory of this view, which was further borne out by the persistence of the dulness and enfeebled breathing to the very end.

There can be no question as to the need of paracentesis here. In the presence of grave valvular disease the existence of pleuritic effusion, especially on the left side, is a serious complication. And it seemed that the diseased heart was being embarrassed by it in this case. The withdrawal of upwards of three pints of fluid from the chest under these conditions could not but have been beneficial; and the relief obtained was for the time very marked. The cardiac disease, which eventually caused the death of the patient, did not at this time give rise to much anxiety. I confess that I was most concerned then with the pleural affection, which obviously seemed not to be a simple pleurisy. The persistence of the friction showed that the inflammatory process had not terminated in universal adhesion, and suggested that it was still continuing. Chiefly, however, the thermometric curve determined me to believe that the pleurisy was probably of tubercular character, an idea quite in accord with the history of the case, so far as the progressive emaciation and sweating were concerned, and the history of an attack of inflammation of the lungs in early life. Against this view was the absence of any family tubercular taint, and, what was more important, the entire absence of any evidence in the patient himself of pulmonary tubercle, unless the somewhat persistent bronchitis and the troublesome cough could be so explained. Believing, however, that a continued pyrexia of a somewhat hectic character, extending over weeks in duration, is one of the most important elements in determining the tubercular character of a chronic inflammation, I could think of no other alternative. Nor did the fact of his improvement in general health, sufficient to allow of his discharge, entirely dispel this notion, for when he left the hospital the pleuritic signs still persisted.

The rest of the case is unfortunately only too briefly told. He appeared at the hospital on June 5th, after his return from the convalescent home, looking none the better, but rather the worse, for his sojourn. He said that he had been suffering much from cramp in the legs, and that his cough still troubled him. An examination of the heart revealed a slight change in increased intensity of the systolic apex murmur, and of the diastolic basic, which was now inaudible over the aortic cartilage, but hardly heard over the pulmonary—i.e., to the left of the sternum. The condition of the left pleura was not apparently altered.

I regret that the patient was not then readmitted, for he returned a week later in a state of great prostration and dyspnœa. He said that for the last four days he had been unable to take food, and that he was extremely weak and feeble, added to which he was suffering from prolapsus ani of three days' standing. There was a slight rally from the collapse, under stimulants, including hypodermic injection of ether, and he recovered sufficiently to take some nourishment. The pulse, which was very rapid and thready when he was admitted, gained in force and volume. The rally was, however, delusive, for at 2 A.M. next day he was seized with pain at the heart, and fell back dead. Some urine which he passed before death was highly albuminous.

The post-mortem examination was made by Dr. J. K. Fowler, twelve hours after death, and his report is as follows:

"The peritoneal cavity contained fourteen ounces of slightly turbid serum; membrane normal. There were dense fibrous adhesions over the greater part of the left pleura, less firm at the apex, and incomplete over the posterior surface of the lower lobe, where there was still some fluid between the layers, which were here nearly three-sixteenths of an inch in thickness. Over the upper lobe both layers were studded with fine miliary granulations. These

could not be distinguished below, probably owing to the thickness of the pleura. The costal pleura was removed with the lung, and its outer and posterior surface was marked by ridges corresponding to the intercostal spaces. There were no adhesions on the right side, but eight ounces of fluid. The pericardium was normal. The heart weighed 18 oz.; the right cavities were distended with mixed clot and fluid blood. The muscular tissue was marked by pale yellow fatty striæ; the valves were normal; the left auricle was not dilated; the mitral valve was slightly contracted at its free edge, near which, on the anterior cusp, were some fine fibrinous vegetations, which also occurred around some of the chordæ tendineæ near their insertion in the valve. Two aneurysms existed in this cusp: one three-sixteenths of an inch from the free edge had a perforation, one on each side, and a very small sac; the other higher up, a little above the centre of the cusp, projected on the auricular aspect in the form of a sac, the size of a pea, surmounted by a small diverticulum. On the ventricular aspect of the cusp the ulcerated mouths of these aneurysms were to be seen, the larger having smooth and rounded margins. Above and below this the valve was covered with a layer of minute vegetations as well as erosions, excited apparently by friction of the aortic vegetations, for the aortic valve was much diseased. Its middle cusp was in great part concealed by a warty mass of vegetations, embedded in which were concretions of lime salts; the right coronary cusp was much reduced in size, its free margin deeply eroded and ragged; the left cusp retained the normal shape, but was opaque and infiltrated with calcareous matter near its attachment; two or three small vegetations also occurred on this cusp. Beyond some atheroma around the orifices of the coronary arteries, the aorta presented a perfectly natural appearance. The mitral valve was probably competent; the aortic allowed regurgitation. The left ventricle was moderately hypertrophied and considerably dilated; the muscular tissue measured seven-eighths of an inch at the base and three-sixteenths of an inch at the apex; it was firm and dense, but through the somewhat thickened endocardium yellow fatty striæ were seen in the muscular tissue. Lungs: the trachea and bronchi contained frothy mucus; there was a caseous nodule at the apex of the left lung, surrounded by some fibrous changes; the lower lobe was partially collapsed, its tissue condensed and rather œdematous. The right lung was œdematous in the lower lobes, but crepitant. The liver weighed 62 ounces, had a nutmeg aspect on section, and was much indurated. The spleen weighed ten ounces and three-quarters, was firmly adherent to the under surface of the diaphragm, which had been fixed in the position of expiration by the pleuritic changes. In the spleen there were three old cicatrices along the anterior margin, remains of old infarctions. All were in process of contraction, their caseous contents dwindling, one surrounded by a zone of congestion. On the posterior surface of the right kidney there was a large puckered cicatricial-looking patch, where the renal tissue had been completely destroyed by an infarction, which had undergone absorption; the cortex was swollen. The cortex of the left kidney was much swollen, and of a pale buff tint, the surface studded with fine hæmorrhages."

The discovery of the miliary granulations in the least adherent portion of the pleural membrane proved the tubercular character of the pleurisy, a character which, had the thickening and adhesion been carried as far at the upper as it was at the lower part of the sac, might have been entirely missed; and the inference based on the clinical course of the case been incapable of proof. The case, then, gains much in interest in being an example of tubercular pleurisy with effusion; and the source of the tuberculosis lay in the caseous focus at the apex of the lung, a relic probably of the attack which befell him in boyhood. The case, then, does not bear out the statements of some writers that tubercular pleurisy is invariably a *pleuritis sicca*, nor that of others that if there be effusion it is sanguinolent. I have had one other case of large serous pleurisy which proved to be tubercular, paracentesis being performed, and with much benefit, but without complete restoration. The patient died in an epileptoid seizure about two months after the tapping, and pleural as well as pulmonary tuberculosis was found.

The cardiac lesions were, as suspected, mainly upon the aortic valve, the cusp of which was so much disorganised that no question can be raised as to the murmurs described being generated at this orifice. The fact, noted more than once, that the diastolic bruit was better heard over the sternum and to the left of it than over the aortic cartilage is a common experience; but the sharp second sound that was audible at the latter spot must have been the pulmonary, for no second sound could possibly be produced by cusps like these. Whether the apex systolic bruit was really due to mitral regurgitation or not I cannot say. Certainly, the absence of any auricular dilatation shows that if the mitral valve were incompetent, it could only have been so for a very short period. The precise character of the aortic endocarditis in this case, and the manner in which the mitral cusp has become involved, are also points to be considered. The large mass of vegetations and the ragged condition of the aortic cusp, the vegetations spreading over the surface of the mitral valve and the ulceration that had taken place, show that the inflammation was still in progress, or, what is more likely, that it had been lighted up afresh; for the changes in spleen and kidney pointed to the occurrence of embolism at a date long prior to the present illness, and enable us to affirm the long duration of the aortic mischief, which the calcareous deposit in the valves also does. Far more recent, however, has been the ulcerative change on the one aortic cusp and on the mitral, which, destroying the ventricular part of the curtain at one or two spots, had led to the small aneurysmal patches which projected upwards from the valve into the auricle, and the perforation of one of which must have caused a minute current of blood to flow from one chamber to the other. (Did this suffice to produce the "mitral" bruit?) The exciting cause of this spreading inflammation on the mitral valve was in all probability the friction of the long, semi-calcified mass of aortic vegetations, as these swayed back with the regurgitant eddy through the aortic orifice. The fatty degeneration of the ventricular wall, together with the aortic disease, sufficiently explain the sudden death.

I have ventured to bring forward this case—1st, because of the occurrence of a large pleuritic effusion in cardiac disease; 2ndly, because of the tubercular nature of the pleurisy; and 3rdly, because of the character of the endocarditis. How far the lowered state of health of the man may have aided in rekindling the endocardial inflammation, and that a link may in this way be established between the two conditions, is an open question. Otherwise it seems to me that we have here in one subject an unusual combination of two uncommon conditions, each of which is by itself a necessarily fatal disorder.

OBSTRUCTION OF THE ŒSOPHAGUS TREATED BY GASTROSTOMY.

BY CHARLES N. MACNAMARA, F.R.C.S. ENG.

J. E——, a tailoress, aged fifty-one, married, was admitted into the Westminster Hospital on May 5th, 1884, under the care of Dr. Donkin. She stated that she had been quite unable to swallow anything for the previous three weeks; that she had constant pain, though not severe, in the chest, and that she had lost much flesh. The patient had had no serious illness. She had been pregnant five times, with two miscarriages. Many years ago she had a rash on the skin and sore-throat, with considerable loss of hair. The family history was good, giving no evidence of hereditary disease. Thirteen months ago she first noticed some difficulty in swallowing solid food, and about six months ago the difficulty seemed to become suddenly worse, so that it cost much effort and pain to swallow anything solid, and vomiting followed in about ten minutes after doing so. The dysphagia increasing, all attempts at taking solid food were relinquished, and only liquids were taken. Three weeks ago, however, even liquids were returned almost immediately. She was then admitted into a hospital where she had been attending for six months as an out-patient, and was fed with nutrient enemata.

On admission into Westminster Hospital the patient was seen to be extremely emaciated, with a somewhat sallow skin. She complained of pain behind the lower part of the sternum, and of great thirst; there was some tenderness on deep pressure over the supra-sternal notch. No tumour could be felt in the neck, or in any part of the body. The heart sounds were clear, but weak. There was no dyspnœa, nor any alteration of voice. The lung resonance was good. On deep inspiration the breath sounds were heard much less loudly over the right side of the back than over the left.

On examination the abdomen appeared to be normal; numerous hard masses were felt at first, but these disappeared after an enema. Œsophageal bougies were passed, but all stopped at a point about twelve or thirteen inches below the teeth; a small-sized one (No. 6) passed no further than a large one; the passage caused a little pain. About three hours afterwards she brought up some pultaceous material, undigested, without acid reaction. Nutrient enemata were given every three hours, and were well retained. Any liquid given by the mouth was at once returned.

On May 9th, with a view to probable gastrotomy, Mr. Macnamara was called in consultation. He failed to pass the smallest instrument through the obstruction, and, as some bloody mucus was attached to the end of the bougie on its withdrawal, he thought it undesirable to make any further attempts to reach the stomach, and strongly advised the operation of gastrostomy, as the patient was rapidly failing.

At 1.30 P.M. on May 14th, the patient being anæsthetised, Mr. Macnamara commenced the operation. As carbolic spray had been employed in the room for two hours previous to the operation, and all the instruments &c. were soaked in carbolic solution, no other antiseptic precautions were taken. A curved incision, about three inches long, having its convexity towards the middle line, was made parallel to and on the inner border of the left costal cartilages, beginning about an inch and a half below the ensiform cartilage. After the bleeding had been arrested, the peritoneal cavity was opened by a cut as long as the skin incision. Portions of large intestine and omentum at once protruded and were returned, and Mr. Macnamara had to enlarge the incision upwards about three-fourths of an inch, exposing the left lobe of the liver. The anterior surface of the stomach was now seen under and to the left of the liver, and a fold of it was drawn through the wound by dressing forceps tipped with rubber. This fold of the anterior wall of the stomach was then transfixed by a needle loaded with stout silver wire; the needle was then passed through a piece of the skin on the thorax, and the wire was there twisted and fastened. The edges of the abdominal wound were then brought together round the protruding portion of the stomach by silk sutures passed through the whole thickness of the wall and peritoneum. At no point was the stomach stitched to the edges of the wound, but the wire suture held it in its place, the piece of stomach protruding through the walls of the abdomen being about the size of the half shell of a walnut. Mr. Macnamara then thought that the wire stitch might cut through and the stomach fall back into the abdomen; so he transfixed the protruding part with a harelip pin placed transversely, so that it rested on the abdominal wall on either side of the wound. Thus all traction was taken off the silver wire, which might then have been removed, but to make quite safe this was not done. The wound was dressed with vaseline spread on lint, two large Gamgee pads covering this. This form of dressing was continued until the patient recovered and all dressing was dispensed with.

On May 15th the patient complained of much pain in the stomach and intense thirst; tongue furred and dry. Pulse 64; temperature 98°. The wound was cleaned and dressed. Nutrient enemata were given every four hours, with twenty minims of tincture of opium in the last one at night; she slept fairly well. On the 17th the wire stitch was removed; the wound looked very healthy and was uniting well. Pulse 65; temperature 98°. The patient still complained of much pain in the abdomen, which was tender; no tympanites. A simple enema was ordered, which acted copiously and gave much relief. At 1 P.M. on the 21st, the seventh day after the operation, Mr. Macnamara made a small opening in the protruding portion of the stomach with a Graefe's cataract knife; the incision was only just large enough to allow the introduction of a No. 8 gum and silk catheter. Through this were injected one ounce and a half of beef-tea and a teaspoonful of brandy. At 6.45 P.M. four ounces of beef-tea and three drachms of brandy were injected; the patient then said she felt full and satisfied. Temperature normal. On the 22nd the patient looked rather jaundiced; urine high coloured. A simple enema was ordered, and this relieved her discomfort. On the 22nd four injections of four ounces each and four of nutrient enemata were given alternately, and this plan of feeding was adhered to for six days. Temperature normal. The enemata were gradually discontinued, and the patient tried to swallow a little fluid by the mouth to relieve her great thirst, but was unable to do so. On the 29th she had her last nutrient enema of milk and egg. She could now swallow a very small quantity slowly.

The harelip pin was withdrawn a fortnight after the first operation, and the stomach receded considerably during the next few days, till it was below the level of the abdominal wall. The food administered by the stomach consisted of milk and egg, beef-tea, Carnrick's peptonoids, and arrowroot; these generally in succession every four hours, about four ounces at a time. If more were given at a time, the patient complained of feeling overfull and uncomfortable. Benger's liquor pepticus was mixed with the food during the first fortnight. The temperature never rose above normal, nor the pulse over 70°.

From June 14th the patient rose at 11 o'clock every morning and sat up all day, dressed in her ordinary clothes.—21st: Up to this time the patient had, since May 22nd, been able to swallow a little fluid, but no solid food. She was now, however, totally unable to take food by the mouth; if she attempted to swallow the fluid caused pain, and was almost immediately returned. The patient was up and about; she had gained flesh, and had no trouble whatever in injecting food into the stomach through the opening in the abdominal walls.

The above details from the date of the operation have been drawn up by Mr. Herbert Pulling, house-surgeon at Westminster Hospital, to whose great care and judgment the satisfactory termination of the case is largely due.

CONGENITAL CONTRACTION OF ORIFICE OF PULMONARY ARTERY FROM FUSION OF THE VALVES; FORAMEN OVALE OPEN.

SEQUEL TO "A CASE OF EXTREME CYANOSIS IN AN ADULT."[1]

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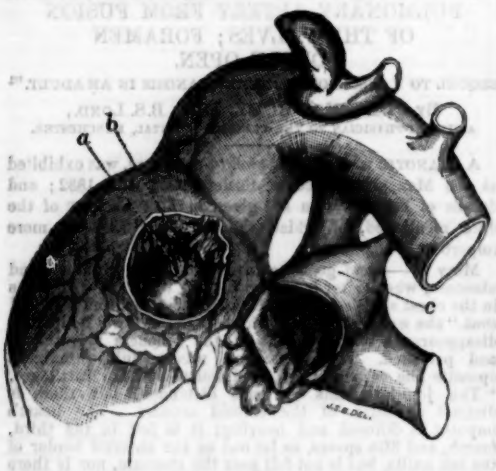
A CYANOTIC woman, aged twenty-one years, was exhibited at the Manchester Medical Society, Oct. 4th, 1882; and details of her condition are given in THE LANCET of the date mentioned, of which the following are the more important:—

Mary F—— had good health till between eighteen and nineteen, when, after hurrying a good deal, she had pains in the chest and back and a choking sensation, and was told that "she was as blue as a whinberry." After a temporary disappearance or abatement of the blueness it returned and persisted. The chest wall was unduly prominent opposite the second, third, and fourth left rib cartilages. "The jugular veins are not distended, but there is distinct pulsation of the carotid arteries. The heart's impulse is diffused and heaving; it is felt in the third, fourth, and fifth spaces, as far out as the anterior border of the left axilla, but is not felt near the sternum, nor is there any epigastric pulsation. The maximum point of the impulse is in the fifth space in the nipple-line; no thrill. The cardiac dulness is much increased, and laterally rather than vertically, extending from about one inch to the right of the sternum to almost the middle of the left axilla; the third rib marks the upper limit of superficial dulness, though the first two spaces are higher pitched than those on the right side; the sixth rib is the lower limit. On auscultation a high-pitched, systolic, whistling murmur is heard at the base, of maximum intensity over the first piece of the sternum; it is well conducted down this bone, being also well heard at the right sterno-clavicular articulation, and faintly in the carotids. A vertical line from the middle of the left clavicle marks its extreme left limit, and the murmur is gradually lost as the stethoscope is moved towards the apex; it is not heard behind; the sounds at the left apex are quite pure. The second sound is accentuated over the pulmonary cartilage, and is louder than at the aortic cartilage. The pulse is regular in rhythm, but not quite regular in force; it is equal on the two sides, and is felt in the femorals and in other arteries."

The patient was seen again in February, 1883, when she stated that she had had attacks of fainting for about a month, and that the pain in her chest was worse; it was noted that the cyanosis had increased, and that the systolic basic murmur was not so loud as formerly, but the heart in other respects was unaltered. The chest pains and difficulty in breath-

[1] Reported in THE LANCET, 1882, vol. ii., p. 801.

ing became more severe, and early in April she was admitted into the hospital. On April 5th, at 1 A.M., the house-surgeon, Mr. Buchan, was called to her: "she was insensible, breathing stertorously, the pulse was rapid and very thready; there was no rigidity or spasm of muscles. Mustard poultices were applied to the cardiac region and an enema of brandy administered. The patient remained unconscious for half an hour and then slowly recovered, answered questions, but was very drowsy and heavy for some time. Temperature 100·8°. Later on in the day she seemed much as usual, and did not complain of anything." On April 23rd my colleague, Dr. Railton, carefully examined the heart and made the following note: "The basic systolic murmur is faint, it is heard equally in both the aortic and the pulmonary areas; no accentuation of the pulmonary second sound is perceptible. The murmur is continued down the sternum, but another murmur, systolic in time and of greater intensity, is heard at the base of the ensiform cartilage. There is no venous pulsation in the neck, and no perceptible pulsation of the liver, but the liver is very tender to pressure. The right auricle is largely distended, as testified by the absolute dulness to the right of the sternum as high as the third rib." On April 30th the patient complained of severe headache, especially at the back. On May 1st, at 12.20 A.M., Mr. Buchan found her screaming with pain in the chest, the cyanosis was excessive, the pulse 130 and very thready, her breathing became stertorous and she quickly passed into a state of profound coma, and died at 1 A.M.



At the necropsy, made fifteen hours after death, rigor mortis was well marked. The length of the body was about fifty-six inches, the limbs were well formed and the subcutaneous fat was everywhere abundant. The lips, ends of fingers, and toes were of a dark-purple colour. On removing the sternum and costal cartilages the pericardium came prominently into view, the tip of the lower lobe of the right lung was also seen, but the left lung was out of sight, being shrunk and bound down by firm fibrous bands. Transversely the exposed pericardium measured six inches and a half, and vertically in the mid-sternal line nearly four inches. The liver was much enlarged, had its lower margin in the same line four inches and a half below the pericardium. On opening the latter the heart, of large size, was placed with its longest diameter transversely, it was also tilted; its anterior surface was made up of right auricle and ventricle, the left ventricle being out of sight. The outer margin of the right auricle was two inches to the right of the right edge of the sternum; both the right cavities were distended with black blood. The heart separated and emptied weighed seventeen ounces, just double the average weight in females at this age; it was square in shape and measured five inches from the root of the pulmonary artery to the apex, and four inches and a half from side to side. The four pulmonary veins were traced to the left auricle. The pulmonary artery after dividing normally into two branches appeared to be prolonged by means of the ductus arteriosus into the aorta; but subsequent dissection showed that there was no opening into the latter, but that the lower part of the duct consisted of a conically shaped space (see figure, *c*), the closed apex being three millimetres or one-ninth of an inch from the aorta. The valves of the pulmonary artery were blended, and formed a thick dome-shaped projection into the root of the artery, dividing the space at its base into three deep pockets. At the top of the dome was a slit-like aperture (*a*), one-eighth of an inch in length, and admitting easily the end of an ordinary probe; it was lined by minute vegetations, and on the wall of the artery immediately above and on the aortic side of this aperture was a small raised cluster of vegetations (*b*). The opening mentioned formed the only direct communication between the right ventricle and the pulmonary artery; the latter and its branches were smaller, and had thinner walls than normal. The right auricle and ventricle were dilated and hypertrophied, the muscular substance of the ventricle being dark-red and unusually firm and thick, and the musculi papillares very large. The tricuspid orifice admitted the tips of two fingers; granulations covered with fibrin were found on two of the segments of the valve: namely, on the left one—that resting on the ventricular septum—and on the anterior one, in each case on the auricular surface and near the lower edge, the crop of vegetations on the anterior cusp being much the larger and a quarter of an inch in diameter. The coronary sinus appeared much larger than natural; its auricular end was nearly half an inch in diameter. The foramen ovale, widely open, measured seven-eighths of an inch vertically and five-eighths across, a portion of the valve with a sharp edge projected from the posterior and lower side of the foramen. The left were, as compared with the right cavities, small in capacity; the ventricular wall was thickened, and its maximum thickness was a little greater than that of the wall of the right ventricle (for measurements see below). The left auriculo-ventricular opening was not quite so wide as the right one, scarcely admitting the tips of two fingers; both segments of the mitral valve were thickened just above their free edges, but there were no signs of recent endocarditis. The aortic valve presented slight irregularities; the two posterior flaps were firmly united for a short distance from their common angle of origin; they were also fenestrated near their junction with one another and with the anterior flap, at each corner of each of these valves were two small holes crossed by a slender fibrous band; the lunulæ of the anterior cusp were entire. Above the valve small patches of atheroma were present on the wall of the artery. Both the aorta and pulmonary artery were unusually small, alike as regards their calibre and the thickness of their walls; the aorta looked slightly constricted after giving off the left subclavian, and the lumen here was half an inch less than at the origin of the aorta. There were two instead of three primary branches, the left carotid and innominate starting as a common trunk. The accompanying table of measurements brings out, amongst other things, the contrast between the size of the heart and that of its orifices and the two arterial trunks; the former is larger, and its walls much thicker, the latter smaller and thinner, than natural.

*Dimensions of the heart, in inches.**

	Healthy female.	Mary F——.
Circumference of heart	9·236	11·125
Girth of right ventricle	5·184	7·125
Girth of left ventricle	4·049	4·
Thickness of walls of right ventricle	·118—·164	·4—·5
Thickness of walls of left ventricle	·222—·497	·4—·62
Thickness of septum	·421	·5
Circumf. of right auriculo-ventricular aperture	4·562	3·5
Circumf. of left auriculo-ventricular aperture	3·996	3·
Circumf. of pulmonic aperture	3·493	2·5
Circumf. of aortic aperture	3·019	2·
Circumf. of lumen of descending portion of arch	—	1·5

Weights.

	Healthy female.	Mary F——.
Heart	8½ ounces	17 ounces
Lungs	32 „	50 „
Kidneys	8—9 „	15 „
Spleen	4—9 „	8 „
Liver	40—50 „	54 „
Brain	43·7 „	49½ „

* See Peacock's article in Reynolds' System of Medicine, vol. iv.

The lungs, much congested, were free from tubercle. The kidneys, spleen, liver, and brain were also very congested, and, as seen in the table, heavier than natural. Slices of the brain exhibited black bleeding points. The liver, large and firm, presented the characteristic nutmeg appearance, and showed under the microscope great dilatation of the veins, especially of the intralobular ones, and around the latter the liver cells were much wasted, the intervening spaces being filled up with yellowish-brown pigment granules. There was also a small-celled infiltration of the periportal connective tissue. The kidneys were firmer than natural, and sections showed a commencing intertubular cirrhosis, and all the bloodvessels and large tracts of tubules were filled and distended with red blood-corpuscles.

Remarks.—The view taken of the case during life—namely, "that the origin of the pulmonary artery was affected with endocarditis in fœtal life; that the effects of its obstruction were compensated for by the persistence of communication between the two sides of the heart, and perhaps also by a patent ductus arteriosus"—is shown by the post-mortem examination to have been in the main correct. But now, further, we see, from the absence of any defect in the septum between the ventricles, that in all probability the pulmonary artery became diseased late in fœtal life, after the completion of the septum, and that at birth the contracted orifice rendered the artery incapable of transmitting the increased current of blood to the lungs, and then the ensuing strain on the right ventricle would keep open and be relieved by the foramen ovale. With so much obstruction at the exit of the right ventricle the relatively large size of the pulmonary artery and its branches appears somewhat remarkable, and one would expect to find a patent ductus arteriosus or some other channel by means of which blood could enter the artery. But perhaps the narrowing of the pulmonic aperture from blending of the similunar cusps was slow enough to permit the closure of the duct, and attained its maximum some time after this closure; and even with a small communication between the ventricle and artery, the latter would be kept full of blood, and so maintain a fair size or dwindle very slowly. In the previous report it was pointed out that many of the physical signs suggested obstructive disease at the aortic orifice, thus the systolic murmur loudest at the top of the sternum was traceable towards the inner end of the right clavicle, and along the carotids; there was no epigastric pulsation, but a heaving impulse in the left mammary region. The autopsy revealed excessive hypertrophy with some dilatation of the right ventricle, and moderate hypertrophy of the left ventricle associated with a partial fusing of two cusps of the aortic valve; the frænum thus formed projecting into the aortic aperture would be likely to evolve sonorous vibrations in the blood of the ascending arch, and at least may be offered as an explanation of the fact that a systolic bruit was heard as well below the right as below the left clavicle, in the latter position generated with greater certainty by the narrowed pulmonic orifice. In the presence of such extreme right hypertrophy the absence of any perceptible transmitted impulse to the lower end of the sternum or to the epigastrium, is a striking clinical feature, and one to be remembered in making a diagnosis of unusual heart conditions. The chest was repeatedly examined, and yet no pulsation was ever felt near the sternum, and the maximum point of the heaving impulse was always about the left nipple-line. These signs receive some interpretation by a consideration of the rotated transverse position of the heart with its concealed hypertrophied left ventricle. The fenestration of the aortic valve is probably a congenital defect, and would not give rise to much, if any, regurgitation. The small size of the arch is noteworthy, and especially the constriction of the third portion. During the last few weeks of life a systolic murmur was heard at the ensiform cartilage, and the pulmonary second sound became weaker. The fibrinous deposits on the tricuspid valve and the resulting imperfect adaptation of its segments give reasons for a tricuspid murmur; and it has been said that tricuspid regurgitation will lessen the intensity of the second sound at the pulmonary cartilage.[2] Probably at this time, too, endocarditis was lit up in the pulmonary artery. Such gradually increasing obstacles to an already overstrained heart fully account for the increasing distress, the final paroxysms of pain, the quickly ensuing comatose death, and for the intense venous congestion of the brain and other organs found after death.

Many similar cases to the one related are to be found in medical literature. Thus, Dr. Peacock[3] collected notes of twenty persons who presented this anomaly—namely, obstruction at the orifice of the pulmonary artery with an open foramen ovale, and eleven of these lived to the age of fifteen years and upwards.

Manchester.

[2] See Balfour: Clinical Lectures on Diseases of the Heart and Aorta, second edition, p. 194.

[3] Malformations of the Human Heart, second edition, p. 180.

JEQUIRITY (ABRUS PRECATORIUS, LINNÉ); ITS USE IN DISEASES OF THE SKIN.

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ALTHOUGH a drug of great antiquity, centuries ago in use in Egypt, and well known in Sanscrit by the name of Gunja to the Hindoos and Burmese, jequirity again comes forward as a most formidable weapon in the hands of the physician in his battle with disease. Prosper Albinus in 1592 quotes it as in use in Egypt. The resemblance of the plant to liquorice was remarked in 1700 by Sloane, who called it Phaseolus glycyrrhites. It was introduced in the Bengal Pharmacopœia in 1844, and in that of India in 1868. Its names and synonyms are so numerous as to cause me to omit the majority of them, which are claimed to number over fifty. It is frequently called Brazilian peas, Indian liquorice, wild liquorice, with equivalent terms in other languages, but by the rules for our terminology it should be known as "abrus." The seeds are now almost exclusively employed, and will only be considered hereafter in speaking of it. The plant belongs to the natural order of Leguminosæ. It is indigenous to India, but grows wild in all tropical countries, and though found in the primeval forests of Brazil, whence our supply is now mostly obtained, it is claimed to have been brought there by birds, or otherwise. The seeds, also called prayer beads, jumble beads, crabs' eyes, &c., are globular-ovate, about one-fifth of an inch in length, scarlet-red, glossy, with a black spot surrounding the hilum. The testa is hard, enclosing a fleshy embryo of plano-convex cotyledons, and accumbent radicle. They are inodorous and have a bean-like taste. Their chemical composition has been frequently investigated. Berzelius in 1827 found in the leaves and branches a principle resembling glycyrrhizin, also present in the root, which contains sugar, though he mentioned nothing of other constituents. Prof. Harden, in 1882, by treating the seeds with boiling alcohol, obtained white crystalline abric acid, slightly soluble in cold water, and said to have the formula of $C_{31}H_{34}NO$. They also contain fixed oil. Rigaud and Dusart in 1883 isolated from them an alkaloid, but neither the acid nor the alkaloid appears to be their active or toxic principle.[1] Mello E. Oliveiro, on treating the seeds with boiling water, slightly acidulated with hydrochloric acid, separated a bright-rose-coloured substance, which, on the addition of 45 per cent. of alcohol, changes to red, a greyish-white substance of a gummy nature being deposited. The red liquid thus obtained after exposure to light, assumes a greenish colour, persisting for some time. Dr. Neisser believes its active principle to be, so far, not yet isolated amorphous ferment, which Salmonsen and Dorkirk Holmfeld claim as insoluble in alcohol, chloroform, benzine, and ether, but slightly soluble in water and very soluble in glycerine. They claim to have obtained it by treating the powdered seed with ten times its weight of glycerine, from which it was precipitated by five times its volume of alcohol. The microscopic inspection of the fresh infusion by Dr. Silva E. Chanjo developed the presence of polyhedric cells filled with granular protoplasm, which he considers cells of the seeds, separated in the bruising and macerating; also round spherical very brilliant bodies, capable of movement either around their axes or in a forward direction, which with a lower power looked like a fine powder. The older infusion exhibits, besides the powder which

[1] Much of the botanical description is taken from advance sheets of the National Dispensatory, kindly furnished by Prof. J. M. Maisch.

he considers as conidia, true cells and tubes of a microscopic plant with spores and mycelium. The spores he states as large, ovoid, sometimes solitary, or in groups of two, three, or more. The tubes either bear spores or are bare, and are branched, and between them the powder mentioned as conidia is seen. These are stated to be the more marked the older the infusion. Sattler of Erlangen states that schizomycetes, or cleft fungus, exists in the infusion in immense numbers. These he classes with bacilli. These microbes are found in the infusion five minutes after it is made, using warm water for that purpose. He claims that they increase by a sort of segmentation, giving off spores when about forty-eight hours old. Their property of vegetating is retained on remoistening after drying for a week, while in an ice-chest their development is arrested, and a temperature of 180° F. for five minutes does not affect the germinating power; but the infusion is entirely freed from germs by boiling, and was sterilised by a solution of mercuric bichloride (1 in 10,000). The seeds have been often described as possessing poisonous properties, Herman even stating that two or three constitute a fatal dose. That this is not so would appear from the fact that though hard and indigestible, they have been used as food in Egypt and elsewhere. By Hindoo medical writers they have been variously recommended as an application in sciatica, stiffness of shoulder-joint, paralysis, and other affections. They are even said, when eaten, to prevent fecundity. The principal use of jequirity, however, is in certain affections of the eyes, for which it seems to have first found application in some parts of Brazil, where eye diseases are both frequent and virulent. The prevalent inflammations there are, if neglected, apt to develop granulations, followed by serious consequences. These granulations especially are one of the forms of ophthalmia which have proved so obstinate to treatment, and it is for this condition that jequirity seems to have been especially employed there empirically. Dr. Castro E. Silva published a paper on jequirity in affections of the eye in 1867, in which he calls attention to the dangers connected with its use. He speaks of cases in which after two or three applications a very intense inflammation of the eyelids and conjunctiva ensued, extending over the whole face, the neck, the upper part of the thorax, and even involving the submaxillary glands. A cold infusion is generally employed, which is applied to the eyes three times daily, so that some of it may pass under the lids. Even after the first application the eyes begin to "water," they feel burning hot, and the eyelids are heavy. The day following the inflammation is still more intense, the patient can no longer open the eyes, the lids swell, and are shining violet, ecchymosis of the conjunctiva is very marked, while an abundant muco-purulent discharge develops and the patient suffers great pain.

Dr. Moura, Brazil, made extended experiments on animals, especially rabbits; and in the strength of 1 in 20 produced a most intense inflammation of their eyes, which did not yield to any remedy, progressing to suppuration of the eyeball, gangrene of the lids, and inflammation of the submaxillary glands. The strength subsequently employed by Dr. Moura was 1 in 200, in the form of cold infusion, with which he produced, when applied to granular ophthalmia once a day, a moderate inflammation, and healing of the granulations in a few days.

Dr. L. de Wecker, of Paris, who, simultaneously with Dr. Moura, made observations on the action of jequirity in certain eye affections, gives his *résumé*, which is as follows: 1. There is no doubt that an infusion of jequirity produces a purulent ophthalmia of a croupous nature, the intensity of which can be regulated by the strength and number of applications. 2. The cornea runs no risk during the development of jequiritic ophthalmia. 3. The jequiritic ophthalmia cures granulations rapidly.

Dr. Knapp, of New York, regards the use of jequirity by no means without danger, and even holds that the secretion of the jequirity ophthalmia may be conveyed to and infect a healthy eye, and in a case where he tried it side by side with other means, he saw no particular advantage; and while he admits that it is a remedy in trachoma, it is not *the* remedy.

The latest report on the therapeutic value of jequirity in affections of the eye is probably that made by Dr. Arthur Benson before the Ophthalmological Society of the United Kingdom on March 13th, in which he sums up his results as follows:—Jequiritic ophthalmia can be produced (1) by the powdered seed; (2) by the freshly made infusion; (3) by the infusion after bacilli had grown in it; (4) by the infusion six weeks old, and swarming with micro-organisms of most varied types; and (5) by the infusion after these bacilli had ceased all motion, and had sunk apparently dead. The examination of the discharges from jequiritic ophthalmia revealed no typical bacilli, and were entirely devoid of infective qualities. He had a high opinion of the treatment of granular lids with jequirity, and had seen no serious results therefrom.

After considering all the foregoing observations, it certainly occurred to me that jequirity possesses qualities which make it act as a destructive agent upon the granular tissue of the eyelids, causing an inflammatory process which has all the characteristics of that produced by an escharotic, without the effect that the general class of the latter produces upon the surrounding tissue. If we consider by what means this is accomplished, we must certainly exclude chemical action of any kind, as the proximate components of the seeds have been shown to be innocent in their action on the animal organism. That they are even consumed as food would warrant us further in assuming them as such, else most certainly gastro-intestinal irritation of the most violent kind would be produced by them. That they need a third element to develop their destructive effect upon organic structure seems therefore evident. This can be construed as arising from two sources only. One of these would be explained by the development of a new substance formed by the action of the moisture on a certain ferment and bodies capable of being acted upon by it, as is the case in the emulsion and amygdalin of bitter almonds and the sinigrin and myrosin of mustard; but physical evidence for such a change in jequirity is wanting, as it betrays neither by smell nor taste the presence of a new product. The experiments and results of Neisser, as well as those of Salomonsen and Dorkirk Holmfeld, would warrant the assumption of this, and if their amorphous ferment obtained by glycerine extractions and alcohol precipitation really produced in solution the specific jequirity ophthalmia, the inference would lead us to such a theory. Possibly sterilisation, however, of jequirity infusion by mercuric bichloride and other antiseptics, as well as by boiling, renders this most untenable and improbable. There is evidently another agency concerned in this most remarkable action of jequirity, more so than the development of a new chemical irritant in that body. This we must look for in the atmosphere which we have been taught by Pasteur and others to regard as bearing the germs of more micro-organic development in soil suitable and chemically composed for their sustenance. This seems a more likely and plausible view from the fact that a proteid body and solution of its albuminous parts in a cold infusion is rapidly invaded by new growths of micro-vegetation possessed, as described above, both of conidia and mycelia. That it thus forms a nutrient liquid for the cultivation of germs there seems no further doubt, and that these can be destroyed and further growth arrested by either boiling or mercuric bichloride has been experimentally proved. That during the development of the new growth no carbonic acid gas is developed or acid formed shows, further, that the microbe owes its development not to an oxidation or destruction of any hydrocarbon contained in the bean. My deduction, therefore, leads me to the conclusion that the fungoid growth of the infusion, originating from bacterial influence of the atmosphere, must proliferate at the expense of the albuminous contents of the infusion, which in its rapid proliferation it destroys unto its own ultimate death. My argument is intended to show further its relation to cellular tissue and cell contents, in order to explain the *rationale* of its destruction of granular tissue. The bacterium applied to such cell structure finds in these and their contents all the elements necessary to its own growth and reproduction, casting the effete product on the surface, until by exclusion of atmospheric air and over-production its own existence ceases. That it is a typical disease carrier which could be employed to wage war and exterminate hostile micrococci is certainly ridiculous in the extreme, as well as that, like the ubiquitous bacillus, it acts on the vaccination principle by rendering the organism no longer a fertile soil for the invasion of other micro-organisms. The inference from this deduction led me to experiment with jequirity on a larger sphere and in affections which present similar pathological conditions, as the granular lid. As the action of the fungus developed in the jequirity infusion seems to destruc-

tively attack the proliferating cell, while it does not act in such a manner on the external coverings and mucous surfaces, I employed it to affections of the skin showing great cell proliferation; as such I selected lupoid conditions, epithelioma, sloughing ulcers, &c. When at first disappointed with the ordinary infusion used in eye affections, and also with the dry powder dusted over the surface, I applied to Dr. L. Wolff, the well-known chemist, for a more effective preparation, which would not alone be much stronger, but which would at the same time be more viscid, so as to adhere longer to the surface. This he accomplished in a most successful manner in the following way:—Two hundred grains of the bean are decorticated by being slightly bruised and cracked in a mortar, the red hulls are carefully picked from the cotyledons and, in a bottle, covered with distilled water. They are thus macerated for twenty-four hours, when they are again transferred to a mortar and thoroughly triturated until they are reduced to a smooth paste, when sufficient water is added to make the whole weigh 800 grains. Prepared in this way, it presents all the appearances of an emulsion, and is applied with a large camel-hair pencil or mop to the surface to be treated. The effect of this preparation of jequirity, while almost painless in its application to ulcerated and granular surfaces, soon developed (and often within an hour) a great deal of irritation and inflammation, rendering the edges red and infiltrated, the surroundings œdematous and shining, and caused some febrile exacerbation in the patient, depending in degree on the area involved. The usual concomitant symptoms of such febrile process are apt to show themselves at this stage, such as headache, pain in the extremities, elevated temperature, and high pulse, all of which, however, are not general, but found only occasionally, and particularly in irritable and very susceptible patients. In the course of from six to twelve hours, the products of this specific inflammation are abundant, and soon aggregated on the surface in a desiccated, cuirass-like crust, which now obscures further observation. This crust, in the course of twenty-four hours, further exhibits a tendency to crack and break, giving vent to the flow of the products of the degenerative process. This condition, if left alone, will continue for five to six days, the discharge lessening by degrees; the firmly adhering crusts, if not detached on their own account, are now removed by water dressings, and expose to view a surface studded with healthy granulations and islets of healed-up surface, along with evidence of the progress of the regenerative progress at the periphery. In cases where one application does not suffice, and where there is still evidence of the presence of unhealthy granulations, a second application is now made, and conducted as before, and a third and further application being made, as the case may require.

The results thus obtained with jequirity will best be seen from the citation of a few cases from the case book of the Philadelphia Hospital for Skin Diseases.

CASE 1.—John T——, aged thirty-five years, car conductor, has been under treatment for some time. Specific ulceration on the right leg. He cannot give up his occupation. Under specific treatment the colour of the edges improved, but showed no tendency to heal. By an application of jequirity in one week the ulcer was greatly improved, with edges smooth and healing; another application of jequirity healed up the ulcer completely after the second week.

CASE 2.—Jane W——, aged seventeen, factory hand. Scrofulous, indolent ulcer on neck, easily bleeding with unhealthy ground. She was put under constitutional anti-scrofulous treatment. After an application of jequirity the crusts were removed in a week, the patient being greatly improved in health. After two weeks' applications the ulceration was looking healthy, and healed under simple dressings.

CASE 3.—Mrs. G——, aged forty. Ulcerating lupus extending over the bridge of the nose. A case of Dr. Albert Fricke, of this city, to whom I was called in consultation. The patient had been under the care of several physicians. Escharotics and scrapers had both been applied, but to no advantage. I suggested the use of jequirity. The first application of a clear infusion proved of no avail, running off without causing any marked irritation. The concentrated emulsio-infusion was applied with a camel-hair brush every third day, until a firm cuirass-like scab was formed. After this had become spontaneously detached, at the end of three weeks, the surface entirely healed over.

CASE 4.—Mr. W——, aged forty-three. A large epithelial ulceration on the dorsal surface of the left hand. He met some years ago with an injury to the hand. He had gradually increasing lancinating and excruciating pains and spreading ulceration, until it entirely covered the dorsal surface. He had been under various treatment, with only partial amelioration of the symptoms. Had been cauterised and scraped with no permanent advantage. The concentrated emulsio-infusion of jequirity was applied in the usual way. It soon developed all the signs of the specific inflammation, leaving immense scabs, which were four times detached, and followed by new applications, when ultimately the entire surface was completely cicatrised.

CASE 5.—Lavinia W——, aged forty-five, seamstress. Ulcerating lupus on both sides of the face. A most desperate case. She had been under treatment for years, consisting of periodical scrapings and applications of caustics as well as the cautery, which in every instance were followed by exuberant granulations notwithstanding the most careful local and constitutional treatment. The surface was affected in irregular patches, extending to no less than two and a half by four inches on each side. As a *dernier ressort* and a last case for the jequirity treatment, the concentrated emulsio-infusion was applied freely over the patches. It was followed by an enormous amount of inflammation, accompanied by malaise, febrile exacerbation, the temperature rising to 103°, which lasted until the cuirass-like crusts had formed and commenced to dry up. After these were detached and the applications renewed, the same constitutional disturbances took place, lessening, however, in the proportion as cicatrisation decreased the affected surfaces. After the fifth application the crusts were allowed to detach themselves spontaneously, and with it a well-healed surface was apparent all over the patches, granulations, tubercles, and ulcerations having entirely disappeared.

A number of other cases from the hospital case-book could be cited would space permit, and I would only refer to the alarming constitutional symptoms reported by Medical Director Albert L. Gihon, U.S.N., in a case treated by him at my suggestion. In that instance the temperature of the patient, an old man, rose to 103°, but the ultimate result has so far not been reported.

To sum up. The results of the treatment of diseases of the skin with jequirity lead me to pronounce it a most powerful agent, applicable to most all cases of unhealthy, ulcerating and granulating conditions, upon which it certainly exercises a destructive tendency, followed by a constructive change, and forming under the protective covers of the exudation it causes a rapid development of healthy tissue. Though under proper conditions and careful supervision it is a remedy of the greatest service, it should be applied with caution, as it may give rise to alarming symptoms—erysipelatous inflammation and, if used on weak and irritable patients, to great constitutional disturbances. These symptoms, however, will speedily subside with proper attention and on the drying of the crusts. That jequirity has a still larger field than simply that of ophthalmic practice will readily appear as a deduction from my experience. Though the *modus operandi* of its action as stated by me may be modified in the course of time, its curative results in the class of cases to which I have referred will be indisputable, and be more freely developed as it finds more general application and introduction.

THE

RADICAL CURE OF UMBILICAL HERNIA.

BY W. MITCHELL ROOCROFT,

HON. SURGEON TO THE ROYAL ALBERT EDWARD INFIRMARY, WIGAN.

TRUE umbilical hernia is a disease of such frequent occurrence that cases are constantly coming under our notice as surgeons. It is a disease of infancy and childhood, being almost always congenital. When it occurs in adults we more frequently find it in women, especially those who have borne many children, or who are loaded with internal fat, and even in these adults I think that the disease commences in childhood, but is unnoticed or does not develop itself until the abdominal muscles have been weakened and the umbilical aperture relaxed by the pressure of the gravid uterus. When the hernia is small and reducible we can generally effect all that is desired by an accurately fitting

truss, though I doubt if a permanent cure is ever established by this method. It is in those cases especially which have grown to an enormous size as years have passed on, where the hernia is irreducible, the patient frequently suffering from flatulent distension, there is constant fear of obstruction or strangulation, or even where the surface of the tumour is covered with ulcerations, either the result of neglect or a badly fitting belt, that the surgeon feels it incumbent upon himself to recommend a means of cure beyond the usual methods of rest in the recumbent posture, strict attention to diet, and a belt or pad, &c. That such a means of cure exists, and is accompanied with less danger than is usually supposed, I hope the following notes may prove.

Margaret C——, aged fourteen years, was admitted under my care into the Wigan Infirmary on March 14th, 1884, suffering from a large umbilical hernia, with ulcerations over the surface of the tumour. On examination I find the patient is decidedly hydrocephalic, and presents evidences of having suffered from rickets. Is only thirty-eight inches in height, fairly well nourished, not very intelligent, though can answer simple questions. The corneæ are dull, the result of chronic keratitis. Family history good, though the mother died during the patient's infancy from alcoholism, so the child was probably neglected. I learn from the relations that the umbilicus was injured at birth through the neglect of the midwife; but they first noticed a swelling in the situation of the present tumour six years ago, when the patient was about eight years old. Since then it has gone on increasing in size, and has become ulcerated. The ulcerations do not heal, and are extending. On examining the abdomen I discovered a large umbilical hernia, rather larger than a cocoa-nut, covering the surface of the abdomen from within two inches of the ensiform cartilage to a point about three inches above the symphysis pubis. The skin covering the tumour is moderately tense, and presents several ulcerations over the anterior surface. The ulcerations seem to involve almost the whole thickness of the true skin, and discharge very offensive pus. Upon trying taxis I find that I can reduce most of the hernia, but a portion remains behind, and is irreducible. I discover the umbilical aperture will admit three fingers easily; consequently, taking into consideration the probable space occupied by the neck of the irreducible portion of the hernia, it is about two inches in diameter. The tongue is furred, and she suffers from obstinate constipation. Temperature normal.

Taking all the circumstances of the case into consideration, the great inconvenience of the tumour, the inapplicability of a belt or pad, the liability to obstruction or strangulation, the fear lest the ulcerations should extend into the sac and eventually establish an incurable artificial anus, with the anxiety of the relatives, and their urgent request that something should, if possible, be done to cure the patient, I decided to perform an operation which has hitherto been looked upon by surgeons as hazardous in the extreme. In order to prepare my patient for the operation, I gave instructions that she should remain in bed, to have milk diet, and the ulcerated surfaces to be dusted with iodoform, and absorbent pads repeatedly changed to render the part as near as possible aseptic. On March 20th I performed the following operation under carbolic spray, and with all necessary antiseptic precautions. The patient being under the influence of chloroform, as much of the hernia was reduced by taxis as possible. Two elliptical incisions were made, about five inches in length, uniting above and below, over the anterior surface of the tumour, including all the ulcerations. It was then found that the anterior surface of the sac was adherent to the skin, and could not be separated; so the sac was opened and the skin between the incisions, together with and including that portion of the sac which was adherent, removed. I then discovered that the irreducible portion of the hernia consisted principally of omentum, which was adherent to one side of the neck and adjacent portion of the sac. This was carefully separated, and the whole returned into the abdominal cavity. Four stout copper wires were next passed separately from without inwards on one side of the umbilical aperture, about half an inch from the margin, then involving the neck of the sac on both sides, and from within outwards, through the other side of the aperture, the point of the needle being the whole time guarded by my left index-finger. When the four sutures had all been passed, each was tightly twisted, and the aperture completely occluded. The ends of the wire sutures were brought out of the centre of the incision, and a drainage-tube inserted, traversing the whole length of the wound and protruding at each end. The sides of the incision were then brought together, except where the deep sutures escaped, with superficial carbolised catgut sutures, and the whole dressed in the usual antiseptic way, with plenty of crumpled dry gauze to absorb any discharge. I may mention that during the operation we had the greatest possible difficulty in retaining the intestines within the abdominal cavity. I had taken the precaution to have the bowels freely opened the day before the operation. I now ordered the patient to have no food by the mouth, but a little ice to suck, to check any vomiting or straining; nutrient enemata of two ounces of milk every two hours; the thighs to be flexed on the abdomen by means of a pillow under the legs, in order to take any tension off the abdominal muscles. A hypodermic injection of morphia at night if necessary. Night temperature after the operation 97°.—21st: Morning temperature 100°. Slept fairly well; did not require the morphia. Pulse 90; no pain. Has retained all the enemata but two; no vomiting. Evening temperature 101·4°. —22nd: Morning temperature 99·4°. Slept well; milk enemata, alternated with one ounce of kreochyle, all retained. Wound dressed; looks well; no suppuration; little discharge, which has all been absorbed by the crumpled gauze. Evening temperature 100·4°.—23rd: Morning temperature 99°. Slept well; feels very comfortable; no pain; enemata retained; says she is hungry, but still sucks the ice. Evening temperature 99·4°. —24th: Morning temperature 98·8°. Sleeping well, but complains of hunger; dressed; wound united in several places by first intention; no suppuration and little discharge; drainage-tube removed. From this date the patient continued to improve, the morning and evening temperatures remaining normal. The wound was dressed every second or third day and continued healthy. On the 25th the bowels acted naturally. On the 28th she was allowed a little of Brand's essence of meat by the mouth, and the enemata were discontinued. On the 31st the wound was dressed. A little suppuration was noticed, but the pus was not offensive. Two or three superficial sutures which had not become absorbed were removed.

April 4th.—In addition to the Brand's essence to have two pints of milk per diem. Bowels acting naturally.—13th: Patient placed under chloroform. By slightly enlarging the superficial incision through which the ends of the deep sutures passed these were snipped and withdrawn.—16th: Carbolic spray discontinued, dressed with an antiseptic absorbent pad; wound nearly healed.—19th: Temperature went up to 102°, but on dressing I found about two drachms of pus burrowing under one edge of the wound; on this being released, the temperature next morning returned to normal, and continued so.

May 1st.—Wound almost healed; patient discharged cured, but to attend for a short time as an out-patient. I saw her again on May 20th, when the wound had healed; there was a good firm cicatrix; the umbilical aperture seemed firmly and completely occluded, and the relatives assured me that she was in better health than she had been for years.

I know that surgeons in the past have displayed considerable apathy in adopting any active operative interference about the umbilicus, probably from a well-grounded supposition that operations in this region were almost invariably fatal. With the daily experiences derived from such operations as ovariotomy &c., where the peritoneal cavity is opened and the advantages of Listerism, such apathy must vanish; yet I hope the preceding remarks will not convey the impression that I would advocate a similar method of treatment in all cases of irreducible umbilical hernia. On the contrary, I am of opinion that only a few cases occur where the surgeon would feel himself justified in performing this operation. Moreover, I am quite cognisant of the fact that the experience of one case, no matter how satisfactory the result, is insufficient to arrive at any definite conclusion; yet I feel convinced that similar cases do exist where this operation, or some slight modification to meet the exigencies of individual cases, might advantageously be adopted and life saved. If my notes add one link to prove not only the feasibility, but, with careful attention to details, the hope of ultimate recovery, I shall rest contented that my efforts have been amply rewarded.

THE Library of the Royal Medical and Chirurgical Society will be closed on Monday, August 11th, and re-opened on Monday, September 15th.

CASES OF ACCIDENTAL POISONING.

BY EDGAR BECKIT TRUMAN, M.D., F.C.S.,
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I. BY ARSENIC.

ON Dec. 5th, 1882, I gave evidence at an inquest held by Mr. A. Browne, deputy district coroner for Notts, at Stapleford, near Nottingham. On Nov. 19th, 1882, C. W—— obtained from a shop kept by Mrs. X—— a paper packet of what was believed to be magnesium carbonate. It was dispensed by Mrs. X—— out of a large bottle containing with the powder a leaden tablespoon as a measure. C. W—— and his wife each took a teaspoonful of the powder in milk, and shortly after suffered from vomiting and purging. The husband, after much pain and discomfort, recovered; but the wife died on the third day afterwards. A post-mortem was made, and the appearances of the viscera were those of death from an irritant poison. The case was referred to me, and on Nov. 25th I received four jars containing respectively the stomach, liver, duodenum, and rectum, a bottle with the contents of the stomach, a large wide-mouthed bottle half full of a white powder, and with a leaden spoon within, and a paper packet of a white powder. In the viscera and contents of the stomach I found arsenic. The white powder in the bottle gave off the usual reactions of arsenious acid and of magnesium carbonate. The relative quantities differed in different parts of the whole, four samples taken giving percentages of arsenious acid of 46, 55, 45, and 55, or an average of 50 per cent. A teaspoonful of the powder levelled up weighed twenty-one grains, so that in a teaspoonful there was about ten grains of arsenic. There was no other metal present. Lead from the spoon was blamed for the result at first. The powder in this paper was identical in character with that in the bottle. It seems that Mr. B—— had kept a shop in this neighbourhood, and obtained his drugs from a leading druggist in Nottingham, who in turn got his stock from London. This Mr. B—— had, however, given up his shop in July, 1881, and at that time sold Mrs. X—— several quantities of simple drugs, including a large bottle of magnesia. The bottle sold to Mrs. X—— was proved to be the same as that from which Mrs. X—— dispensed the powder to C. W——. It was a bottle known to the whole village in fact. Mr. B——'s nephew gave this in evidence, and the nephew's wife said that she had given of its contents frequently to her own baby, and it had never suffered any ill effects. She said she was sure that the bottle when sold was not so full as when produced at the inquest. The bottle was not labeled. The coroner said, in the course of his remarks, that he was afraid it would remain a mystery as to how the arsenic got into the powder, for according to Mrs. X——'s evidence, the contents of the bottle were just the same as when she bought the powder from Mr. B——. The jury returned a verdict that the deceased died from taking arsenic accidentally mixed with magnesia, but how such mixture took place there was no evidence to show.

II. BY STRYCHNIA.

On March 18th, 1884, I gave evidence at an inquest held by Dr. Housley, district coroner for Notts, at Warsop, near Mansfield. W. H—— had a daughter, the deceased, who was ten years old at the time of her death. She occasionally suffered from toothache. On January 4th—i.e., six weeks before the death, finding her in pain from toothache, he sent her to a druggist's shop in Warsop for some Epsom salts. Of this he gave her a teaspoonful in some hot water. She then went to bed; her father and his wife, the child's stepmother, shortly afterwards retired. About 10 o'clock (time of child going to bed not given) the child began to scream. Her father went to her, and she said, "Father, father, I am dying." She complained of pains in the legs, which were stiff and extended. He carried her about the room for twenty minutes, and then put her on the bed. At intervals she screamed and asked not to be put on the ground. When sitting on the bed she said, "It's coming on again." She made "funny faces," and he thought she was "going off her head." After half an hour she vomited and seemed better, and he did not think it necessary to send for a doctor. He gave her a little whisky and water, and occasionally after this there was twitching in the arms, body, and legs. In an hour she went to sleep. Next morning she seemed dull and drowsy. He did not think at the time that the salts were the cause of her symptoms. On February 16th the child again complained of the toothache, and her father gave her half a teaspoonful of the same salts in hot water. She went to lie down, and in a quarter of an hour cried out for him. He found her suffering in the same way as before. He sent for Mr. Stein of Warsop, who found the girl unconscious and almost pulseless, with the face quite pale and the lips livid. She went into a series of convulsions, which attacked the body, arms, and legs. She shortly after died. Mr. Stein made a post-mortem, and finding no appearance of death from natural causes, and indeed stating that the symptoms were those of strychnine poisoning, reserved the stomach for analysis. On February 20th I received the following articles: (1) A white jar, covered and sealed; (2) a powder in a blue paper; (3) a small bottle labelled "toothache tincture."

1. The jar contained a small human stomach, tied at both ends, weighing 13½ oz., with the contents, which latter weighed 8¼ oz. The mucous membrane was natural. The contents consisted of a brown thick fluid, with an acid reaction, and of some lumps of cooked flesh resembling ham and some fat and potato. I examined these contents for magnesium sulphate, finding both base and acid present. I then took half the stomach and half the contents, making an acid watery extract, which I exhausted with alcohol, the alcoholic extract dissolved in water being treated, by a well-known method, alternately with chloroform and ammonia and sulphuric acid. Finally I obtained from the half of the stomach and contents a pure white crystalline evaporate from alcoholic solution, weighing ·007 of a gramme—i.e., in grains, for the whole stomach, ·007 × 2 × 15 = ·21 grain. I tested this alkaloid in the usual way for strychnia. The solution in acetic acid was intensely bitter to the taste, gave a yellow precipitate with chromate of potassium, and the solid showed the violet reaction with manganese binoxide and sulphuric acid. Nitric acid did not redden the solid, showing absence of brucia. To show that this substance was altogether strychnia, and not a mixture with some other alkaloid, I made use of two methods, chemical and physiological. The colour, reaction, and bitterness to the taste I found most marked to ·00001 of a gramme, and the physiological test I used as follows. Frogs I found it impossible to get, and instead thereof made use of toads, just then spawning and easily obtained. I took male toads of equal size, and made two solutions, one of the crystalline evaporate and one of a pure strychnia from Morson's, of the same strength. Into toad A I injected by the hypodermic syringe ·005 gramme of the alkaloid from the stomach; into toad B ·005 gramme of pure strychnia. A had first marked tetanic spasm in eighteen minutes; B in twenty minutes. A died in six hours twenty-three minutes; B in six hours thirty-three minutes. A third toad I put unwounded into a vessel containing a grain of acetate of strychnia. He had no symptoms for twenty-seven hours and a half, but died of tetanus in forty-six hours and a half, showing how much longer the thickly tuberculated skin of the toad resists the entrance of a solution of strychnia than in the case of the frog. The dose, ·0001 grain, recommended to produce tetanus in the frog, by a solution in which it is placed unwounded, had not the least effect on the toad for seventy-two hours, when I removed it, and it showed no sign whatever of tetanus afterwards.

2. The blue paper packet contained a white crystalline powder, weighing 355 grains. This was what the father had given doses of to the child, and was supposed to be Epsom salts. There was no label, either of the substance or of the druggist's name. I analysed this substance for oxalic acid and for zinc, with a negative result. I obtained the usual evidence of magnesium and of sulphuric acid. I found and separated, by of course a much simpler proceeding than in No. 1, strychnia in the alkaloidal state, and amounting to 3 per cent. of the whole, but not uniformly distributed. A teaspoonful levelled up weighed 52½ grains; so that it would contain about one and a half grains of strychnia, and the half teaspoonful about three-fourths of a grain.

3. The "toothache tincture" contained no strychnia, and consisted of a solution of camphor in chloroform. It had been used by the child.

The stepmother deposed that her husband had three children, but none by her. On two occasions, by his desire, she bought strychnia for the purpose of poisoning rats (the father was a gamekeeper); but said that the

last quantity, after what was necessary, was thrown into the fire; whilst the father said he distinctly remembered throwing it into a stream. After some little pressure, the stepmother admitted that the child's life was insured. Two of the neighbours deposed that in January of this year each of them had bought Epsom salts at the druggist's where the deceased child had purchased some. In one case the witness gave her daughter, aged ten, as much as would lie on a shilling, and the girl suffered from aching and stiffness of the arms and legs and twitching. Witness threw away the remainder of her salts when she heard of the death of deceased. In the other case the witness had taken a teaspoonful of the salts herself, had twitchings of the arms and legs, but vomited and soon recovered. The druggist who sold the salts deposed that he had no strychnia in the solid state, and had never had it in stock. The bulk of Epsom salts from which he supplied deceased came from a wholesale druggist's in London. The coroner reviewed the evidence at some length, pointing out that the questions for the jury to consider were: Whether the deceased died from poisoning by strychnia; and, if so, how was it mixed with the salts? Was it mixed wilfully and intentionally? Were the salts contaminated by the father, the local, or the London, druggist? He thought that the wisest course would be to return an open verdict, leaving any future action to be taken by the police, if they obtained sufficient information. The jury's verdict was: "That deceased died from strychnia poisoning; but there was not sufficient evidence to show how the poison became mixed with the salts."

Remarks.—I have brought forward these two cases, not for their pathological or chemical aspects but on a medico-legal account. They are similar, inasmuch as it was impossible to trace how, when, and by whom the mixture of poison and medicine took place. It seems to me to offer a new and facile field for the poisoner of the future. If A buys a medicine of B and a poison of C, and mixes them, who is to say whether A did so or whether B did not sell the medicine adulterated with the poison? Of course the greater number of hands the substance bought passes through the greater the difficulty of finding out the person who mixed with it a poison. In the first case the powder which killed Mrs. W—— was bought of Mrs. X——, who bought it of Mr. B——, who bought it of a druggist in Nottingham, who would buy of some London house. In the second case the salts were bought of a local man who bought of a London house. It would have been better in the second case if the police had seized the bulk from which the salts were dispensed by the local druggist.

The cases also were similar in respect of the varying strength of samples taken from different parts of the whole; looking indeed as if the mixture were an accidental one. The verdict of the jury was in each case in almost identical words, to the effect that death was caused by the poisoned medicine, but that there was no evidence to show how the mixture had been effected. My own theory with regard to the first case is as follows. Mr. B—— had been in the habit of keeping a little arsenic for the purpose of sheep-washing; this fact he kept in the background as much as possible, and there was no arsenic or indeed any drug on his premises at the time of the inquest. He probably or possibly kept this arsenic in a paper without a label, and when the necessity for using it had passed by he would push it into a corner of a cupboard and forget all about it. When transferring some of his stock to Mrs. X——, he would turn out this white powder in a paper; not labeled, he would imagine it was an additional quantity of what it so much resembled—viz., the magnesium carbonate—and would put it into the bottle containing his stock of the same. When Mr. B——'s nephew's wife gave her baby some magnesia out of this bottle, it would be before the transfer to Mrs. X—— took place. As to her saying that the bottle was fuller when produced at the inquest than when sold to Mrs. X——, that was possibly due to her imagination. The second case presents much more difficulty. The husband and wife, when examined separately, differed as to the mode in which the residual strychnia was disposed of, and it may perhaps be considered singular that the father, having poisoned rats so frequently, and most likely seen them in the convulsive stage, should have had no suspicion of the real state of things after the first dose. As to the whole teaspoonful being recovered from and the half proving fatal, in the first place the vomiting in the first instance would diminish the amount of poison absorbed, and, in the second place, too great reliance cannot be placed on loose measurements; the whole teaspoonful may have been a small one, and the half a large one. If the packet bought were really a two-ounce one, there must have been, after the teaspoonful and a half had been taken, an ounce unaccounted for; but as 355 grains (sent to me) + 50 + 25 (a teaspoonful and a half) = 430, the packet may have been an ounce only. As to the depositions of the two neighbours that they had suffered from twitching after taking salts purchased from the same druggist, we may perhaps attribute this, in the absence of any but their own testimony, to vivid imaginations acting posteriorly to the fact of the girl's death. I was told that two samples of salts bought from the same druggist had been sent for analysis to a chemist, and with negative results, but this was not put in evidence.

Nottingham.

"PRICKLY HEAT."

BY HENRY T. WHARTON, M.A. OXON.,
HONORARY SURGEON TO THE KILBURN DISPENSARY, ETC.

THIS distressing affection, so common among Europeans in tropical climates, is too rarely met with in England to figure in our text-books under anything but its mere name of "lichen tropicus." The apparent impossibility of relieving the fearful burning heat or the tormenting prickly itching seems to excuse dermatologists from even suggesting a remedy. Nevertheless the disease, although seldom recognised, is far from being unknown in this country. A well-marked case which has come under my observation, and which has ended in a complete cure, seems therefore worthy of being recorded.

My patient, a medical man, after passing the age of thirty suffered year by year continually increasing distress as each summer came round. He is a man of exceptionally good health, who knows nothing of indigestion, biliousness, or liver complaint in his own individual experience. At last his "prickly heat" became intolerable. Not only was the follicular lichenous inflammation so conspicuous on his back that he could not bear to take a Turkish bath in public; but the eruption would appear in considerable patches on his forearms, so that he was ashamed to turn up his shirt-sleeves in ever so troublesome an obstetric case. The disfigurement was almost as serious a matter as the pain. Yet, after having been out at night he would often return to his bed to suffer hours of the torture of his "prickles;" the least increase in the action of the skin brought them on; nor did any treatment prove adequate to bring the slightest relief. From May to November he was a martyr to his troublesome malady. He consulted all his friends and more than one distinguished specialist. His efforts to get cured were as unremitting as they were unavailing; no known art could aid him.

At last it occurred to me that perhaps the light short-sleeved India-gauze vests that he wore in the summer had some share in the causation of his agony; they were too thin either to absorb the perspiration or to protect the skin from sudden (but perniciously grateful) chills. In fact, his endeavour to keep cool was the very cause of his suffering from the heat. I accordingly advised him to wear throughout the summer the thickest long-sleeved vests made entirely of wool, such as he wore in the depth of winter. The result was the absolute cessation of his experience of "prickly heat." All last summer, and up to the present date of this, he has never felt a symptom of the recurrence of his dreaded agony.

I may further mention, as it may throw some light upon the case, that for years my patient suffered a transient attack of urticaria—itching without any outward signs—after a cold bath. Since he has taken to the constant use of hot water for all his ablutions, this irritation has never returned. It would be interesting to learn whether Indian practitioners have ever essayed to combat the excruciating anguish of "prickly heat" by any method similar to mine.

St. George's-road, N.W.

GUY'S HOSPITAL UNIVERSITIES DINNER.—A pleasant gathering of the members of the Universities of Oxford and Cambridge now at Guy's Hospital was held on Wednesday, July 16th, at the Holborn Restaurant, with Mr. J. N. C. Davies Colley, M.A., M.C., in the chair. It was decided that in order to bring the members of the Universities together the dinner should be held annually.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nullaautem estalia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

VICTORIA HOSPITAL FOR CHILDREN, CHELSEA.

ACUTE YELLOW ATROPHY OF LIVER; NECROPSY; REMARKS.

(Under the care of Dr. ALBERT VENN.)

FOR the following notes we are indebted to Mr. John A. Shaw, the registrar:—

Harriet S——, aged seven years, a brunette, was admitted for jaundice and enlargement of abdomen. The family history was good, and the child had previously been healthy. She was taken ill eight months before with slight jaundice, which gradually increased. There had never been pain. The bowels were confined, and there was some bilious sickness after food. The child was quiet and drowsy. She had been treated for six weeks with grey powder.

On admission the body was well-nourished. The skin was of a deep-yellow-olive colour, and the conjunctivæ were deep yellow; the abdomen was uniformly distended and tympanitic, but not painful on pressure; there were no ascites. The superficial epigastric veins of both sides were prominent; the right lobe of the liver was just below the ribs; the left lobe was uniformly enlarged, its edge being well-defined and reaching three fingers' breadth below the ensiform cartilage. The urine was dark, and gave immediately bile reaction; the bowels were confined, the motions being light-coloured; the appetite was good, and there was great thirst. The lungs and heart were normal, and the odour of the breath was sickly sweet. A grain of calomel was given three times a day, and the abdomen was anointed with liniment of iodide of potassium with soap, and well bandaged.

In a few days the umbilicus was sore and inflamed, and there was some hæmorrhage from the bowels. The superficial veins had disappeared, and the abdomen was flaccid; the bowels were loose, being moved eight times in twenty-four hours.

On Feb. 26th the calomel and the liniment were omitted. On the following day a vesicular eruption had appeared, consisting of isolated spots on the sides of the abdomen and thighs, and inclined to be hæmorrhagic. The jaundice was less. Ordered a grain of grey powder three times a day. On the 28th there was hæmorrhage from the gums, lasting two days; the teeth were loose, but the jaundice was less.

March 9th.—The limit of the dulness of the left lobe of the liver was two inches above the umbilicus. The jaundice had increased again, and the child was more drowsy. On the 18th the hæmorrhage was greater from the bowels, and blood once passed without action of the bowels. The superficial veins were again appearing, and the abdomen was tympanitic. Next day one-tenth of a grain of podophyllin resin was given three times a day. On the 22nd the right lobe of the liver had diminished, and the left lobe was noticed to be smaller. One-eighth of a grain of podophyllin three times a day was ordered.

On April 5th the right lobe was much diminished, and the left was evidently getting much smaller. From March 22nd to April 7th one-sixth of a grain of podophyllin was given three times a day. On the 11th the child vomited a teaspoonful of blood, and the vomiting continued more or less to the 15th. On the 17th the child became light-headed, wandering, scarcely recognised her nurse, and was thirsty and drowsy. On the 20th she recognised no one; the pupils were dilated, inactive to light, and there was constant vomiting, with involuntary evacuations and stertorous breathing, and at length the child died. The general treatment consisted of saline purgatives and nitro-hydrochloric acid mixture.

Necropsy, forty-eight hours after death.—There was oozing of blood from the nose, mouth, and rectum. Purpuric spots existed on the legs and thighs. The cartilages of the ribs were stained light-yellow. The lungs were emphysematous at the edges, being externally of a bright-crimson tint; they were generally congested; there were no surface hæmorrhages; there were pneumonia patches at base. The heart was normal; the pericardium contained some yellow-tinged clear fluid. There was very little fluid in the peritoneal cavity on raising the intestines; on a superficial view the great omentum was found to be gathered up. The left lobe of the liver, as seen for about an inch square below the cartilages, was of a yellowish-white colour. The right lobe was not seen. There were considerable firm adhesions to the diaphragm. The liver, with gall-bladder, weighed 10½ oz. There were no superficial cicatrices. The whole was shrunken and the edges thinned; the surface was smooth; the right lobe on section was tough to cut; it presented a nutmeg appearance with yellow infiltrations; the left lobe consisted generally of yellow patches. The gall-bladder was very small, contracted, and contained a little dark-green inspissated matter. The kidneys weighed 2¼ oz., and were congested; there were hæmorrhages in the cortical part. The spleen weighed 1½ oz.; on section it presented a deep-red plum colour, and was hard. Intestines: There were scybalæ in cæcum, and the walls were deeply congested; contents in some parts were greenish, in others of dark offensive feculent matter. The stomach contained dark-grumous, almost black, fluid. Brain: The dura mater was firmly adherent and of a yellow tint; the substance of the brain was apparently healthy.

Remarks.—The points of clinical interest are:—1. The continuance, but varying intensity of jaundice of surface and urine. 2. The hæmorrhage from the bowels at intervals; the pale clayey motions with diarrhœa at times. The later vomiting of blood and hæmorrhage from gums. 3. The absence of ascites, and the absence of emaciation. 4. The low temperature; for the last three weeks usually below 98°. 5. The primary enlargement of liver; its almost sudden decrease with comatose condition supervening. 6. The combination and sequence of symptoms as usually ascribed to hypertrophic cirrhosis, and acute yellow atrophy. The points of therapeutic interest are:—1. The question of salivation, whether the bleeding from the gums was due to mercurial treatment or to the general hæmorrhagic tendency. 2. The first diminution in liver was noticed two days after the commencement of the podophyllin treatment. Was this a cause or a coincidence?

The following is a microscopical examination of the liver made by Dr. Hale White. The liver cells were much atrophied, containing a granular débris; in many cases its outline was vague and the nucleus indistinguishable. Some of the cells contained minute vacuoles, probably fat. There was evidence of interstitial hepatitis, but in no part had this proceeded to form fibrous tissue. In any field of the microscope one was struck with the large number of bile capillaries. It was difficult to say whether this was due simply to their having come close together, owing to the atrophy of the intervening liver cells, or whether they were newly formed. In favour of the latter view, they were distinctly most numerous in that part of the liver affected with hepatitis, although that had not proceeded far enough to cause contraction. There was nothing noteworthy about the bloodvessels. The microscopical appearances confirm the suggestion of the clinical history, that this was an example of acute yellow atrophy supervening on hypertrophic cirrhosis. Careful search failed to discover micro-organisms, described by Dreschfeld and others, filling up the vessels; in this respect the specimen agreed with those described by the various authors who have also failed to discover these micro-organisms.

MANCHESTER ROYAL INFIRMARY.

EXTIRPATION OF THE LARYNX FOR EPITHELIOMA; RECOVERY.

(Under the care of Mr. THOMAS JONES.)

FOR the following interesting notes we are indebted to Mr. Crawshaw, one of the house-surgeons.

J. P——, aged forty-four, was sent to the infirmary by Mr. Martland of Oldham in the early part of the present year. His illness commenced two years ago with a hoarseness which soon ended in a whisper. At this time there was no difficulty in breathing or swallowing. The condition remained unchanged until last August, when he began to have sharp pains in the throat, both on swallowing and coughing. He also had dysphagia, especially when he attempted to swallow fluids.

On admission his condition was as follows:—The patient

was fairly healthy-looking and moderately well-nourished, though he had lost weight since the commencement of his illness. He spoke in a hoarse whisper. There was no evident dyspnœa, except when he lay down. He had occasional fits of coughing, particularly at night, and they generally terminated with the expectoration of a frothy tenacious mucus, which was sometimes tinged with blood. Fluids were swallowed with great difficulty, frequently they excited cough, and were eventually ejected. Swallowing efforts caused some pain, and in addition he sometimes experienced radiating pains in the head and face. On external examination of the larynx nothing abnormal could be felt, except perhaps some thickening of the right side. The larynx moved freely during deglutition, and it readily yielded to lateral pressure. An enlarged gland could be felt in the anterior border of the sterno-mastoid opposite the thyroid cartilage. A laryngoscopic examination was made by Dr. Dreschfeld. Projecting from the back of the epiglottis, a little to the right of the median line, there was a small-pointed tumour, about the size of a bean. Its attachment was broad and sessile, and there extended from it some thickening which involved the aryteno-epiglottidean folds, especially the one on the right. The movements of the vocal cords were impeded, the loss of motion chiefly affecting adduction, and was more marked on the left side.

After remaining in the infirmary for a few days, the patient went home. When he returned, after an absence of some weeks, a marked change for the worse was noticed; all the symptoms—the hoarseness, dyspnœa, cough, expectoration, dysphagia, and the pain—had decidedly increased; he had also become very sallow and pale, and had emaciated considerably. The examination with the laryngoscope was repeated. The growth springing from the epiglottis was much larger, while its surface had become irregular and papular. The thickening in its immediate vicinity had also increased, and that which involved the right epiglottidean fold now formed a very distinct mass, which concealed the right vocal cord. The left cord could be seen; it still retained some movement. No ulceration could be detected. The pharynx was apparently free. External examination disclosed an increase in the thickening of the right side, previously noted. In any attempt to pass a large-sized œsophageal bougie, an impediment was encountered in the lower part of the pharynx. Instruments of a smaller size were admitted without any difficulty; their withdrawal, however, was followed by the expectoration of blood.

April 22nd.—Preliminary tracheotomy was performed, an opening being made in the trachea above the isthmus of the thyroid; great relief followed this procedure, no unfavourable symptoms resulting. Four days later (April 26th) the whole larynx, together with the first ring of the trachea, were removed. The patient being under the influence of chloroform, the ordinary tracheotomy tube was removed and one of Trendelenburg's substituted. A vertical incision was made in the median line of the neck, reaching from the hyoid bone above to the tracheotomy incision below. The structures were carefully separated from the front of the thyroid cartilage, which was then divided and the two halves separated. The interior of the larynx thus brought into view was found to be almost completely filled with a new growth. The mass reached upwards to the epiglottis and downwards as far as, and to a certain extent into, the trachea. The extent of the growth made it evident that nothing short of complete extirpation would be of any avail. In order to do this, more room was required, and it was obtained by prolonging the incision downwards to the sternum, then dividing several more rings of the trachea so as to push the tracheotomy tube further down. This being done, the soft parts were now dissected off the sides of the thyroid cartilage and its attachment to the cricoid severed. The left half of the thyroid was then removed, its remaining attachments being divided with scissors. The right half, including the epiglottis, was treated in the same way. The laryngo-pharyngeal septum was found to be so extensively infiltrated that it was impossible to separate the larynx from the pharynx, so the whole of the anterior and lateral walls of the latter were taken away, only a portion (about an inch wide) of the posterior wall being left. This was subsequently divided and sutured to the margins of the skin incision. The cricoid cartilage, together with the first ring of the trachea, were next excised. The upper end of the trachea was fixed to the skin by a carbolised silk suture on each side. Above the points at which the œsophagus was attached to the skin there was a large cavity which communicated with the mouth. It was washed out with a solution of chloride of zinc (forty grains to the ounce), and afterwards plugged with iodoform gauze. During the operation numerous small arteries were divided, necessitating the application of twenty-two ligatures. Besides this, several vessels were torsioned. The patient took the chloroform well, and there was no special difficulty in any part of the operation. There was a marked degree of shock afterwards. An enema containing an ounce of brandy was given, but not retained. A second one half an hour later remained. The patient's bed was surrounded by a tent, the atmosphere in which was heated and moistened by means of a steam kettle, and the wound in the throat was covered with warm sponges constantly renewed. By the evening—i.e., twelve hours after the operation—the shock had to a great extent passed off. There had been no sickness. The pulse was good and the breathing quiet. The temperature was normal; all the enemata were retained. There was slight oozing of blood from the wound.—27th: The patient passed a very comfortable night, but was rather more feeble. The face wore an anxious expression, the pulse was weak and compressible, and the temperature still normal; slight cough, with expectoration of stringy mucus. In the evening the patient looked brighter, and the pulse was decidedly improving. Since the operation he had been fed exclusively by enemata. A tube was passed through the œsophageal opening in the neck and half a pint of milk introduced into the stomach. Temperature normal.—28th: Has had a good night, yet is depressed this morning. Milk given by the œsophagus causes occasional coughing and is sometimes brought back. Free discharge of mucus from the tracheal opening. During the day he had four pints of milk, one pint of beef, jelly, and two eggs by the œsophageal opening. The daily records show a slow and gradual improvement in the general condition. Our principal troubles arose from the saliva gaining access to the trachea and exciting a great deal of cough. Fortunately we overcame the difficulty by introducing one of Foulis's tubes into the trachea. This accurately fitted the opening and effectually prevented the passage of any secretions.

On May 4th the sutures attaching the œsophagus to the skin were removed, and the upper extremity of the tube allowed to fall back. This permitted a re-establishment of the communication with the mouth, temporarily suspended with the view of facilitating the introduction of food. On the 6th the patient was still progressing favourably, no unpleasant symptoms of any kind having made their appearance. The temperature remained normal. He looked bright and cheerful. A note was made of a swelling the size of a walnut, which was situated in the lower part of the neck at the posterior margin of the left sterno-mastoid muscle. It first appeared about six days after the operation, and attained its present size in two days. This fact rendered the inflammatory nature of the swelling probable. It remained stationary for several weeks, and eventually the withdrawal of a few drachms of sero-purulent fluid finally determined its true character.—15th: Since the date of the last observation patient has been making very rapid progress, and for the last three days has been getting up in the afternoons. The discharge from the wound is diminishing, and the parts look healthy.—25th: The cavity has contracted to such an extent that a finger can scarcely be passed upwards into the mouth. By the aid of a large drainage-tube having one end at the back of the mouth, and the other in the œsophagus, milk can be easily swallowed, without any of the fluid appearing in the neck.

The patient went home on June 14th. He still wears one of Foulis's tubes, and all nourishment is taken by the mouth. During the last three weeks he has gained over a stone in weight. An examination of the parts removed was made by Mr. Young. The whole of the mucous membrane of the larynx and lower part of the epiglottis presented an irregular, corrugated appearance, with here and there slight ulceration. It was so greatly thickened that the cavity of the larynx was almost obliterated. On the left side the true vocal cord and the orifice of the ventricle were discernible, but the normal appearances were in every other respect destroyed. The new growth was fairly limited inferiorly at the lower border of the cricoid cartilage, though below this the mucous membrane was not thickened. Above it was not clearly defined, for scattered nodules extended into the pharyngeal mucous membrane. Microscopically the growth presented the characters of a pavement-celled epithelioma.

Medical Societies.

EPIDEMIOLOGICAL SOCIETY.

AT a meeting of this Society, held at 11, Chandos-street on July 9th, Inspector-General Lawson in the chair,

A short paper on the Revaccination of School Children was read by Mr. R. D. R. SWEETING, Medical Superintendent of the Western Fever and Small-pox Hospital. After observing that consideration of the large number of vaccinated children under fifteen years of age admitted into the small-pox hospitals was not sufficiently recognised by provaccinators, though constantly taken notice of by antivaccinators, he brought forward statistics of such cases admitted into four of the large small-pox hospitals of London during 1881, 1880, 1879, and part of 1878. The numbers were divided into two classes, well and imperfectly vaccinated, and it was seen that 72 per cent. belonged to the latter class. A note was made of the difference of area standard between the Local Government Board and the Asylums Board, and the inference drawn that were the more rigid standard of the former adopted, the numbers of the well vaccinated would be found to be less. The age distribution of the cases was then examined, division into the three first quinquenniads of life being made, the result being that both the gross numbers in each age group and the totals of the two subdivisions were found to increase in the same progression with the age, this being roughly as 1 : 4 : 8. (It was incidentally remarked that this ratio showed the greater protection afforded under five years than over.) After drawing attention to the fact that it was not only the numbers of the imperfectly vaccinated that increased in a mathematical proportion with the age, but also those of the well vaccinated, a renewal of the operation was advised between the ages of ten and fifteen at the latest, and earlier if any special reason exists. Upon this question the opinion of Dr. MacCombie is quoted favourably. School attendance was looked upon as a convenient and readily applicable opportunity for the purpose of such revaccination, and upon this matter a recommendation of the Homerton Committee in 1876 and a valuable Order of the Illinois (U.S.A.) State Board of Health of 1882 were quoted in full. This latter is addressed chiefly to school teachers, and makes it imperative that they should keep a vaccinal record of every scholar, all of whom must present certificates of proper protection, this being very carefully defined. A similar vaccinal registration was then recommended for the London School Boards, to be supplemented by periodic inspection, and compulsory revaccination of the imperfectly protected. The suggested central authority would be either the Education Department, the Local Government Board, the proposed municipality, or, lastly, the hospital authority recommended by the Hospitals Commissioners.

Mr. C. E. PAGET then read some Notes on the Death-rate from Small-pox in the City of Chester in 1774, of which the following is an abstract. He stated that he was desirous of bringing before the Society the records, contained in a report on the city of Chester, of the behaviour of small-pox during an epidemic prevalence of the disease in 1774. From the tables in the report the population appeared to have numbered 14,713, and the average annual mortality from small-pox was estimated at 49, or 3·3 per 1000 of population. In 1774 the total number of deaths was 546, of which 202 were from small-pox, or 13·7 per 1000 of population. The total number of persons attacked by small-pox was 1385, so that, as stated in the report, there died 1 out of 6¾ of those attacked, or at the rate of 14·5 per cent. The incidence of the disease appears to have been exceptionally large in the last three months of the year, 130 deaths out of the 202 being recorded during that period. It must be a matter of surprise that within such recent times the death-rate from small-pox should have been so enormous, for, taking the average annual mortality from this disease in Chester as 49, it was seen by the tables of the report that one-eighth of the whole annual mortality was from small-pox. The report further states that in January, 1775, there were in Chester only 1060, or 1 out of every 14, who had not contracted small-pox, a proportion quite as remarkable as that of the average mortality from the disease; and the report commences with the statement that "the tables prove Chester to be healthy in such an uncommon degree as will astonish those who are best acquainted with the general state of mortality in large towns." It is interesting to note the views of a physician of those times as to the possibility of controlling by inoculation the ravages of small-pox, for Jenner's attention was directed to cow-pox only in 1775, and his first decisive experiment in vaccination was not performed till twenty-one years later. Dr. Haygarth believed that if inoculation were universally practised in Chester the mortality from small-pox would be reduced from 49 to 4; but probably this estimate was too low, and it is fortunate that inoculation was not practised so vigorously as to delay the introduction of vaccination. He estimated, however, from his tables that the proper time for the performance of inoculation was between the first and third months of infancy, a time fully agreeing with that which has been proved to be the best for the performance of vaccination, and he pointed out that the total 202 deaths from small-pox already referred to were among children under ten years of age. The comparison, therefore, of the mortality from small-pox at that date with that which has been recorded of late years will not be found wanting in interest, for the infant mortality from this disease has now been enormously reduced, and the mortality among adults appears to arise chiefly through their not being revaccinated.

Dr. CORY also presented the report of the Special Committee appointed to investigate the Conditions affecting the protection against Small-pox afforded by Vaccination, which was ordered to be printed.

In the discussion which followed, Surgeon-General Manifold, Drs. Pringle, Cory, Willoughby, and Messrs. Corney and Shirley Murphy took part.

ACADEMY OF MEDICINE IN IRELAND.

AT a meeting of the Pathological Section on May 2nd, Mr. ARTHUR BENSON read a paper on the Nature of Jequirity Inflammation, recounting a series of experiments on which he had been engaged since January last. He concluded that the bacillus found in the infusion had nothing whatever to do with the production of the inflammation, but had not yet satisfied himself as to its real nature. He could produce the characteristic membranous ophthalmia with jequirity powder, with freshly made cold infusion, with infusion in which the bacilli had developed, with the same after they had died, and with an infusion more than eight weeks old, but still swarming with micro-organisms of various kinds; while he had failed to produce any results by inoculation of the discharge or membrane caused by jequirity. Nor could he in the membrane or discharge find any bacilli whatever, though he had made numerous observations at all stages of the affection. In these respects his observations were confirmed by those of Neisser, Klein, Salomonsen, and Holmfield. He had latterly tried the effects of powdered jequirity dusted on callous ulcers of the leg, and found that a similar membranous inflammation was produced on them as in the conjunctiva, the membrane being easily detached from the ulcerated surface. The stimulation caused by the application seemed decidedly beneficial in a certain class of ulcers, and even in vascular ulcers the application of the powder produced hardly any pain whatever.—The PRESIDENT said the communication was most interesting. The merit of a man who demolished a false theory was only second to that of a man who established a true one.—Mr. STORY remarked that when jequirity was first introduced into ophthalmic surgery as a cure for granular ophthalmia, it was conjectured by oculists that the cause of the inflammation was micro-organisms. He, too, for a long time believed that bacilli were the cause of the ophthalmia, but since Dr. Benson's experiments he had modified his opinion, and did not regard that theory as proved.—Dr. JOSEPH KENNY believed that Dr. Benson's observations were at all events coeval with those of Klein. In the North Dublin Union Workhouse the drug was tried on ulcers with strongly marked improvement as the result, and on the whole he was encouraged to proceed with the investigation of the effects of the drug in cases of ulcer.

Mr. P. S. ABRAHAM, in a communication on Scapulo-Humeral Dislocation in the Horse, said that dislocation of the shoulder-joint is very uncommon in the horse. Most writers on veterinary surgery do not allude to such a lesion; others deny its possibility; and only one or two mention cases in which the accident had happened. No description had been found of an actual specimen, and probably the example before the Academy was unique. The humerus was

dislocated on to the dorsum of the scapula, the head being three and a half inches away from the glenoid surface. The outer edge of the latter was broken off and forced up. The capsular ligament was ruptured, but none of the muscles or their tendons, that of the flexor brachii being only much stretched and changed in direction. Anchylosis had commenced between the humerus and scapula in their new position. The horse took a fence intemperately and fell across a narrow bank at the other side of the ditch, with its off fore-leg under it. When got to stand up the deformity was observed, but the horse was able to put the foot to the ground, and was led a distance of three miles and a half to the nearest station and brought to Dublin. The veterinary surgeons were confident that some muscle or muscles were ruptured, and that the joint was not dislocated. They ridiculed any attempt at reduction. A severe blister was applied, and subsequently a leather shield was fastened tightly on. The strap caused a sore on the withers, and ten weeks after the injury lockjaw set in.—Dr. BENNETT asked whether veterinary surgeons regarded this dislocation as an impossibility in the cow. The anatomy was similar to that in the horse, but the conditions for the occurrence were somewhat less favourable.—Mr. ABRAHAM said the joint in the cow, though similar, was not quite the same as that in the horse. The top of the humerus was not so large in the cow, and the whole shoulder was not so movable as in the horse. One method of reduction in the case of the cow was by putting the hoof of the leg over the horns and driving the animal until the dislocation got in of its own accord.

Mr. STORY exhibited a rare Tumour of the Orbit about the size of a small pea, which he had removed from a young woman aged twenty. It had existed from earliest childhood, and had lately increased in size. The tumour lay beneath the lower lid towards the inner canthus, was freely movable in all directions, strong and hard to the touch, and was covered by slightly discoloured skin. When the patient stooped, laughed, cried, or took violent exercise, this patch of bluish skin became swollen. When the superjacent soft parts were divided the little tumour came out without further interference. On section it was found to be solid and formed of a series of irregularly concentric lamellæ, which microscopical examination showed to consist of fibrous tissue and calcified matter of unknown origin, along with cellular conglomerations of an indefinite character. Nothing resembling either bone or cartilage existed in the tumour, its stony hardness being due to new calcification. He considered the tumour to be a phlebolith, the history of the case and the pathological appearances agreeing with that view. The only tumour at all resembling it hitherto described was one removed by Fano, and described by that author as an osteo-fibro-cartilaginous growth.—Mr. ABRAHAM said he had examined the section prepared by Mr. Story, and believed that he had come to a correct conclusion as to the tumour being of the nature of a phlebolith. There was nothing bearing the form of cartilage cells in the growth. It seemed to consist of a kind of low fibrous tissue which had become calcified. The inside consisted of an irregular amorphous mass of material, and it was impossible to say what that was.—Mr. BENSON thought the tumour in the first instance was a nævus.—On the motion of Mr. STORY, seconded by Dr. BENNETT, the specimen was sent to the Committee of Reference.

Dr LENTAIGNE having submitted a specimen of Multiple Diverticula of Large Intestine, said it was wonderful that no evil effects had resulted. According to the opinion of Dr. Habershon, the formations in such cases were the result of constipation and the attempts of the intestine to expel the fæces. In the specimen the longitudinal fibres were very much hypertrophied.

Mr. THOMSON showed a case of Fracture of the Head and Articular Surface of the Tibia. The patient had fallen from a height, reaching the ground on his feet, and the bone was fractured by the weight of the body communicated by the condyles of the femur. He showed that this fracture was not described in the ordinary books of reference. Heydeursich, in 1877, referred to four cases in the continental museums. Professor Gordon of Belfast mentioned that there were three specimens in the museum there, and Professor Bennett of Dublin had secured an excellent specimen from the dissecting-room, the injury in that case having been recovered from.—Dr. STOKES said a much smaller amount of force would produce fracture of the tibia when the knee was flexed than when it was in a straight position, because there was a much smaller amount of curvature of the condyles.

MEDICAL OFFICERS OF SCHOOLS ASSOCIATION.

A MEETING of this Association was held on July 24th at the Medical Society's Rooms, Cavendish-square, Surgeon-Major Evatt, M.D., President, in the chair. The hon. secretary, Dr. Alder Smith, read the minutes of the last meeting. The Council had decided that the annual general meeting should be held about Easter, 1885. Another ordinary meeting is to take place before the Christmas holidays.

The PRESIDENT, in opening the proceedings of the afternoon, prefaced Dr. Andrew's paper by a few remarks on some of the objects of the Association, which now numbers fifty-eight members. Dr. Evatt said he had long considered that the footing of medical officers of schools was not established on a satisfactory basis, and this Association was calculated to strengthen the hands of such medical officers. He thought it was a grand part of the duty of the medical officers to instruct boys on the dangers which assailed them on their entry into adult life, and Miss Ellis Hopkins, who so much sympathised with these aims, had congratulated him on the course he adopted at the Woolwich Military Academy. With regard to infectious diseases in large public schools, he considered that much good would result from a full discussion of the whole subject by members of the Association. In his opinion no man was better fitted for the head mastership of a school than a talented medical man, and he believed a new priesthood was coming forward in the form of medical men capable of discharging also the duties of head master.—Dr. ALDER SMITH then read the report of the Council, which set forth the objects, constitution, and printed rules of the Association. These were unanimously adopted by the meeting.

Dr. JAMES ANDREW, physician to Christ's Hospital, read a paper on the Managment of Epidemics of Infectious Diseases in Schools. He first dwelt on some general considerations bearing on the necessity for such an Association. It had been said that societies were so numerous that unless good reasons existed for founding a new one we had no right to add to the number. The principle of the division of labour may be carried too far, and we ought to be careful not to make artificial distinctions. To justify the creation of a new Association, the importance of the field of labour, practically or theoretically, or both, ought to be admitted on all sides. Further, there should be something special in the objects of the new body. Special qualifications should be required, or such as are only to be obtained by special training, so that things may be better done. In the care which was necessary for the welfare, physically, morally, and intellectually, of our youth he saw a sufficient justification for the establishment of this Society. Degeneration of the physical basis of life certainly could not take place without corresponding lowering of the mental and moral constitutions. The duties of medical officers of schools were becoming more and more widely separated from those of the general practitioner, and problems arose before them requiring the highest practical knowledge and sagacity in order to be promptly and efficiently solved. It must be confessed that at some schools a medical officer exists only in a most rudimentary form. The first necessity of a public school is efficient medical supervision, and this is impossible without a recognised medical head. It was constantly happening that masters of schools refused to recognise dangers to health resulting from many infectious diseases and overwork. Next, it was imperative that a recognised medical canon which should enlighten and guide all medical officers should exist; by such means the ignorant may be taught and the eccentricities of the otherwise competent smoothed out. Dr. Andrew next considered the nature and scope of work which ought to be undertaken by the Society. The opportunity afforded for the study of the nature and history of diseases amongst large numbers of boys congregated together was not one to be lost. The period of incubation was a subject which required much investigation. He opined that this period in scarlet fever was by no means so uniform as some books taught. We knew that the period of incubation varies greatly in small-pox after inoculation; the determination of the maximum and minimum periods of latency ought to be definitely ascertained. With regard to the presence of symptoms during the period of incubation from which a diagnosis might be made, he thought a large field of observation was opened.

A careful examination of the conditions which gave rise to different types of the same diseases would repay the observer. Epidemics of scarlet fever and typhoid fever varied greatly in the intensity and characters of the predominant symptoms. Diphtheria, especially in relation to the paralysis which occurred afterwards, was also, in his opinion, a case in point. A study of the relationship of different forms of disease to each other and their influence on each other, as rheumatic fever and scarlet fever, variola and typhoid, was a promising field of inquiry. Whether the liability to take small-pox again or after successful vaccination were due to want of care in the vaccination, or whether, as Sir James Paget suggested, a fresh modification of constitution might be brought about by some disease subsequent to vaccination, was also a fit subject for investigation. Mention was made by Paget of the occurrence of typhoid fever, in 1850, in a town near Oxford; when small-pox broke out in 1865 it was shown by Mr. Daniel that out of 616 persons then revaccinated the result was unsuccessful in many, but by no means in all, and it also came out clearly that the successful revaccinations occurred chiefly or almost wholly among those who had had typhoid fever previously. Dr. Andrew was inclined to believe that a severe attack of typhoid fever did away with the protection afforded by vaccination. The development of inherited peculiarities, as well as the best mode of correcting hereditary diathesis, were also worthy subjects of observation. The best plan of erecting school buildings and dormitories, and the question of separate establishments for boys under and over twelve years, as was done at Christ's Hospital, with a view of diminishing the frequency and severity of epidemics in the London house, were also problems for consideration. Information, too, was wanted as to what were the best means to be adopted in case of an epidemic of scarlet fever and measles. In an instance in which the virus has been imported, perhaps complete isolation of the sufferers and possible carriers of infection would be effectual, and quarantine ought to extend as long as the maximum period of incubation of scarlet fever. In many instances there would be some difficulty, because no certain diagnosis would be possible. When the epidemic is raging, the question, Ought the school to be broken up? will arise. Dr. Andrew confessed that he permitted the parents to take away their boys if they chose. Another matter was the importance of careful disinfection of the clothes; in many schools adequate means for proper disinfection did not exist.—Dr. FULLER (St. Nicholas's College, Lancing) said that in many schools there were no proper means of isolation. The maximum limit of the period of incubation of scarlet fever, in his experience, might safely be put at fourteen days, and he always enforced quarantine for that space of time. He had waited for thirteen days without having a fresh case, but even then had been disappointed.—Dr. INGLE (The Leys School, Cambridge), Surgeon-Major LEVER (Military College, Oxford), Dr. ALDER SMITH, and the PRESIDENT, also made some remarks.—Dr. FYFFE (Clifton College) spoke of the value of a good sanatorium attached to a school. He asked how the origin of a case of scarlet fever occurring on the nineteenth day after another case could be explained. Dr. Clement Dukes had said that after eight days there need be no fear of new cases arising.—Dr. EVATT said that in a recent epidemic of measles at Woolwich he turned all his boys out into tents and marquees with satisfactory results.—Dr. FYFFE said that at Clifton he had three sanatoria, one for non-infectious cases, another for contagious skin diseases, and a third for acute specifics; but even here difficulties were to be encountered when the nature of a case was doubtful, so that in addition an observation room is required.—Mr. HOLDERNESS (Eton) thought that certificates stating that boys had not been in contact with contagious affections for a week or ten days before their return to school ought to be given.—Dr. ALDER SMITH said that he wished to state most strongly that every public school ought to be under the control of an undivided medical responsibility, with full power to act immediately occasion required it. It was well known that some masters were not nearly so particular as others. Moreover, it was unfortunate that so many differences of opinion existed amongst medical officers themselves. This fact was strongly illustrated by a review of the fifty replies which had been received to a circular form of inquiry drawn up by Dr. Alder Smith. For instance, in answer to the question, What length of time (dating from the appearance of the rash) do you insist upon before the pupil is allowed to rejoin school? the time given varies for scarlet fever from one month to three months, and the same difference of opinion was found by going through the whole list of questions proposed in the circular form of inquiry.—Mr. COOMBS (Bedford County School) was strongly of opinion that certificates from parents or guardians were not of the least value, for infectious disorders might be caught whilst the pupils were *en route* to the school.—Dr. DOLAN (Shibden Industrial Schools) said that quarantine for three weeks was an excellent regulation when any doubt existed as to whether the boys came from an infected district.—Dr. BRETT (London Orphan Asylum) did not think certificates were of much value.—Dr. JONES (Epsom College) considered that certificates were of some good, though not of much importance. He was sorry to have to say that the parents did not always write the truth.—Mr. STEDMAN (St. John's Foundation Schools) also joined in the discussion.—Dr. SHELLY (Haileybury) thought that every school should have some place of isolation for the detention of doubtful cases. With regard to the certificate from the parents, stating that the boy had not been in contact with infection for a certain period before returning to school, he said that personal experience made him absolutely sure that it was of no value. He also spoke on the question of disinfection of clothes, and said that he believed the disinfection of the clothes of a measles patient might be accomplished by exposure to sunlight and air. German measles was in his experience much more difficult of disinfection.

The following resolution was moved by Dr. ALDER SMITH, seconded by Dr. EVATT, and unanimously carried:—"That the Council be requested to bring forward at the next meeting a series of resolutions on the best methods for the prevention of epidemic diseases in schools, and that the business of the meeting be the discussion of the resolutions with a view to their adoption." A copy of this resolution will be sent to every member at least three weeks before the next meeting takes place.

Dr. Thursfield (Leamington College), Dr. Fletcher (Highgate Grammar School), Dr. Pike (Malvern College), Dr. Jones (Epsom Medical College), and Dr. Tomkins (Female Orphan Asylum) were elected members of the Society.

New Inventions.

THE COMPANION URINARY CASE.

THE above-named case contains in very compact form all the appliances usually required in the examination of urine. It may be briefly described as follows:—An ordinary cylindrical two-ounce glass measure has closely fitted into it a test-tube, and into this again is placed a urinometer in case. At one end is a small spirit-lamp. Litmus and turmeric papers fill up a groove running lengthways. In the lid is a

gum catheter, a glass stirring rod, and two delicate long glass-stoppered bottles for caustic potash and picric acid. With the contents of this case the urine can be drawn off, the amount measured, and the specific gravity and reactions to blue and red litmus paper taken. With the two chemicals, caustic potash and picric acid, and the aid of the spirit-lamp, pus, albumen, and sugar may be examined for. There is no strong acid to ooze out in carriage. The whole is contained in a case measuring seven inches long, one three-quarters deep, and the same in width. It has been made for me by Messrs. Arnold and Sons of Smithfield.

T. FREDERICK PEARSE, M.D.

A NEW LEVER WITH TRACTOR BLADE.

THE instrument here represented has been recently made by my direction by Messrs. Meyer and Meltzer. When closed it is of the form of an ordinary vectis, but with this modification: it has applied to its inner surface, by means of a sliding screw running in its handle and shank, a similarly shaped blade to the outer one, and this inner blade can be projected beyond the outer one after the instrument is applied in a closed condition to the extent of two inches and a half or less, according to need. The chief novelty of this instrument is the augmentation of the lever and tractile power of a vectis by the projection of an inner movable blade. The cases in which this instrument will be found useful are: in breech or footling presentations, where there is delay in the delivery of the after-coming head, especially in those cases where, owing to the presence of the shoulders causing an obstacle to locking of the blades, the forceps cannot readily be applied, its great power as a tractor being then eminently useful. It is also efficient in cases of face presentation, the occiput being easily brought down by means of this instrument, and also in some cases of occipito-posterior presentations in which it is desired to aid rotation of the vertex. It should be introduced closed as an ordinary forceps blade, the end of the fenestrum being carefully guarded and directed by the fingers of the left hand inside the cervix. When in proper position, the screw is pressed, and the inner blade made to project to the requisite distance. As the blade is projected by simple pressure, the resistance can be estimated, and the chances of injury to the soft parts reduced to a minimum.

Tavistock-square. LUKE ROBINSON, M.D. Cal., &c.

THE ALBERT SATCHEL.

THIS is one of the best satchels for tourists' use we have seen. It is made so as to combine the advantages of a knapsack and handbag, is thoroughly waterproof, and weighs about 16 oz. It will, we believe, be a welcome addition to the pedestrian's equipment. The manufacturers are the Army Rubber Company, Brompton-road, Knightsbridge.

BRITISH MEDICAL ASSOCIATION.

THE fifty-second annual meeting of the British Medical Association commenced in Belfast on Tuesday, this being the third occasion on which the Association has visited Ireland. The meetings are held in Queen's College, Belfast, the general meetings in the library, and the various sectional meetings in the lecture-rooms.

At 3 o'clock the first general meeting was held in the library, when there was a very large assemblage. The retiring President, Dr. Waters, took the chair; and the minutes of the last meeting having been taken as read, Dr. Waters said that, as the term of his presidency was about to expire, the only remaining duty which he had to perform was to introduce his successor to the chair which he had the honour of filling. The past year had not been an uneventful one in the history of their Association; on the contrary, it had been marked by the enactment of laws in reference to the Society which had produced material alteration, making the executive more responsible than the whole body. The change was one which, he believed, would tend to the increased prosperity of the Association. To that body and the committee of council, which had guided the council to its present position of strength and usefulness, they owed, in his opinion, a large debt of gratitude. He congratulated them on the great prosperity of their Society, and the steady increase of their members—an increase which bade fair, in the course of years, to include within the Association almost every member of the profession in this country. Dr. Waters concluded by thanking them for the honour they had conferred upon him, and by introducing Prof. Cuming, Belfast, the president for the ensuing year.

Dr. Cuming having taken the chair, a cordial vote of thanks was given to Dr. Waters, and he was elected a vice-president of the Association for life. From the report we gather that the invested funds of the Association now amount to over £17,000, and the number of members to nearly 11,000. The revenue of the Association for the year ending Dec. 31st last was £20,545, the expenditure £18,141, leaving a surplus of £2404. Dr. Wade having resigned the post of treasurer, Mr. Macnamara (London) was elected in his place. At 8 o'clock the meeting reassembled in the library, which was lit up with the electric light, and was crowded with members who had come to hear the President's address.

At the conclusion of Dr. Cuming's address a vote of thanks, proposed by Dr. Douglas Powell, and seconded by Dr. Grimshaw of Dublin, Registrar-General of Ireland, and a native of Belfast, was most heartily accorded to him. A discussion on some notices of motion followed, and the meeting concluded at 10.30. Amongst the distinguished foreigners attending the meeting are Professor Sayre (New York), Dr. Jacobi (New York), Dr. Cordes (Geneva), Dr. Jones (Chicago), Dr. Moore (Rochester), Dr. Shoemaker (Philadelphia), Professor Zehender (Rostock), Dr. Pozzi (Paris), Professor Gayet (Lyons), Dr. Dujardin-Beaumetz (Paris).

On Wednesday morning, at 9.30, Professor Sayre (New York) gave a demonstration in the anatomical theatre of the College of his plan of treating curvature of the spine. There was an immense audience, who paid marked attention to the professor as he explained and illustrated his well-known method of treatment.

At eleven o'clock the second general meeting was held when Mr. Wheelhouse (Leeds) resigned his post of President of the Council and was elected a vice-president of the Association for life. Dr. Balthazar Foster (Birmingham) was elected President of the Council in his place. An invitation was presented from the medical men in South Wales asking that the Association should meet in Cardiff next year. This was cordially agreed to, and Dr. Edwards was chosen President-elect. Dr. Ord then delivered his address, at the conclusion of which a cordial vote of thanks, moved by Dr. Waters (Liverpool), and seconded by Professor Gairdner (Glasgow), was accorded to that gentleman.

The meetings of the sections opened on Wednesday afternoon, when addresses were delivered by Dr. Smith, Dr. Godson, Professor Greenfield, Dr. Maclagan, and Sir J. Mac Cormac. Special discussions were opened by Mr. Lawson Tait and Dr. G. Johnson. In the evening there was a brilliant conversazione in Queen's College, two thousand guests being present.

MEDICAL MEN FOR COLONIAL SERVICE.

A BRIEF paper was read by Dr. Dyce Duckworth at the First Intercolonial Medical Congress, held in Amsterdam last year, on the supply of sound practitioners for the English colonies. The author of the paper is of opinion that encouragement should be given to young men of good ability to come forward for colonial service, and that this end might be served by the institution of scholarships in general literature or science of such value that the costs of medical education might be, at all events, partially defrayed, it being suggested that the funds for this purpose should come from the Colonial Department of the Government. The study of physics and chemistry is urged in opposition to a detailed knowledge of anatomy, physiology, and botany. To protect properly qualified men, Dr. Duckworth considers that it ought to be the care of the mother country or of the local Government to prevent imperfectly educated practitioners from practising in a colony. He thinks it important to recommend that no colonial practitioners should commence work in tropical regions under the age of twenty-three or twenty-four years. Statistics seem to prove that a better standard of health is maintained if tropical service is begun at this time of life, and that Europeans are thus enabled to resist the special risks of trying climates with greater prospect of success.

THE LANCET.

LONDON: SATURDAY, AUGUST 2, 1884.

WE confess to announcing the miscarriage of the Medical Bill with a considerable sense of relief. For some weeks past it has been too evident that if the Bill was to pass at all it would do so in a gravely mutilated condition. Hence our relief at its disappearance. But let no one construe our confession of relief into one of satisfaction. We are filled with shame and the sense of disappointment, qualified only with the conviction that what has happened is better than what might have happened. The present system of numerous and rival bodies granting half diplomas remains condemned and disparaged before the country and Parliament. It has not been slightly altered, so as to look something different, as it might have been if the Ministry had yielded—as it threatened to do—to the pressure that was so discreditably applied to it. When a great accident happens, the only satisfaction to be got is in a diligent search for the answer to two great questions—What is to blame? and Who is to blame?

To take the first question—*What* is to blame for the fact that an obvious reform, recommended by a Royal Commission of the highest authority, regarded by the Medical Council itself as the only thing to remedy the existing evils, and demanded for forty years by the medical profession, has been again defeated? The fact itself is of the gravest import. The reform desired is not a revolution. It is one which has been repeatedly attempted by the Conservative party, and which the Duke of RICHMOND besought the Government to carry through without further delay. It is only fair to admit that for the failure of legislation one of the most obvious and simple causes is the absurd state of Parliamentary procedure. The forms of the House of Commons invite obstruction, and reward it. At every stage encouragement is given to the least distinguished members to mar the work upon which Ministers and Members of Royal Commissions may have spent years. Leave has to be taken to bring in a Bill. It has to be read three times. A motion has to be made to go into Committee, and various other motions. On all of these occasions speeches may be made, amendments moved, and obstruction practised. The 652 members may all try their hands at an amendment, and intimidate Ministers by a show of opposition. But perhaps the greatest absurdity in Parliamentary procedure is the rule that the progress made with a Bill in one session is not to count at all in the next. The promoters of the Bill have to begin again *de novo*. The Medical Bill, for example, has passed the House of Lords, and has been read a second time in the House of Commons. Its principles have been accepted in both Houses. If next year it could be taken straight into Committee in the House of Commons, and the Minister in charge had the time and the courage to place boldly before the House the chief points of the evidence put before the Royal Commission, the Bill would pass by a large majority. But according to the present rules of procedure, the Bill would, in all probability, not reach the Committee stage of the House of Commons till the end of July, and the Minister would be driven to an undignified system of haggling with exacting or unpatriotic members, and the process of bargaining would go on till the very marrow of the Bill would be sold, and nothing left for anyone to care for. The enemies of medical reform may well congratulate themselves on the perfection with which these rules for preventing legislation have been carried out. But the result is terribly humbling to the strongest Government of modern times, with a majority of 130 at its back. On the theory that the House of Commons is an excellent club, and legislation a mischievous thing to be discouraged, the blank report of sessions is of course all right. But this theory will not long command for the House of Commons the respect of earnest men who see great evils to be remedied, and the utter impotence of Parliament to deal with them. Verily, Mr. GLADSTONE lately struck the right nail on the head when he said that, beyond all other reforms, that which is most needed is the reform of procedure in the House of Commons.

But, coming to our second inquiry, *Who* is to blame? no fault of the rules of procedure will exonerate those who take advantage of them, or who abuse their influence in the House to prevent wholesome and reasonable legislation. There were pages of amendments placed on the order papers which we have no hesitation in saying were entirely without justification, and, if not meant to waste time and stop the Bill, were singularly well fitted for that purpose. Take as an illustration—by no means the worst—an amendment in Dr. LYONS' name, proposing to create Medical Lords of Appeal with the rank of Barons, and votes and seats for life in the House of Lords. Can a man of Dr. LYONS' sense really think to alter the constitution of the House of Lords by a clause in a Medical Bill, or can he think to increase respect for medical representatives in Parliament by giving utterance to such impracticable propositions? If Dr. LYONS had spent half as much of his excellent intellect in supporting the Government Bill as in devising this amendment, he would have compelled the admiration of the profession. But the chief culprit, in our opinion, for the last and greatest failure in medical legislation, is Sir LYON PLAYFAIR. Everything was going smoothly, and promised success, till his amendment, dealing a deadly blow at the very essence of all wholesome and just legislation, was propounded. Sir LYON PLAYFAIR had last year, with his university, entirely accepted the principle that university students, like all other students, should pass the Final Board. The very numbers taught and passed by the Scotch universities constitute an argument why they should cheerfully accept this principle. Their degrees would have gained in public estimation by their doing so. Now they appear as shirking a slight test, and give Mr. SIMON additional ground for his taunt that their examinations are no higher than a qualifying examination ought to be. Sir LYON PLAYFAIR knows that the profession had set its mind on fair play all round—the subjecting of graduates and non-graduates to one common test. He knew that when he began to tamper with that principle he was parting company with the profession and grievously disappointing it. His speech, as we have shown, was full of damaging insinuations against the Bill, founded on most inaccurate data and unsound arguments. He spoke as an ex-professor, and in no sense as a medical man. Neither is this the first time

hat Sir LYON has disappointed the profession. Ten years ago, when Mr. GLADSTONE's Government brought in a Bill, he could have carried direct representation with a little pains. But he did not take the pains, and the Bill was lost. Now he has had the courage to move the omission of the other great principle, the reduction and consolidation of the licensing authorities; and by so harassing the Government, which too easily yielded to his pressure, he has wrecked another Bill. Few men had it in their power to do so much good or so much harm. He has chosen to do harm and to wreck another Medical Bill. The Edinburgh University and Sir LYON PLAYFAIR doubtless know their own business best, but the profession will not soon be convinced that Sir LYON PLAYFAIR has any claim to its confidence, seeing that he has on two great occasions so blighted its most reasonable and most ardent hopes.

IT is not for us to rejoice in the adverse issue of an action at law arising out of proceedings that discredit the profession to which we belong, and which it is our pride to represent. At the same time, it must be confessed, we believe good—great and lasting good—will come out of this evil. The men upon whom the Tower of Siloam fell were not worse than a multitude of others who were not so visited; but it was none the less on that account a fact that wrong-doing merited punishment. We have for many years past protested, in the name of the profession, against the lunacy laws and the system of private asylums. These laws are as bad as they can well be, and the pretended supervision exercised by the Commissioners in Lunacy is a farce, a technical travesty of protection, nothing better, and, on the whole, tending to increase the peril of evil by throwing a false glamour of security over them. So far as the relations of the public to the medical profession are concerned, the whole principle of the law of lunacy is utterly and hopelessly wrong, and places us in a false position. The power of imprisonment given to the keepers of asylums, whether public or private, is not needed. The manner of proceeding by examination and certificates is clumsy and ineffective. The endowment of "medical" certificates with the power of a *lettre de cachet* is a violation of the underlying principles of law and justice, and outrageously and recklessly imprudent. The reception of such certificates from any and every member of the profession without regard to special qualification of any sort is an astounding piece of stupidity. And the attachment of any value whatever to the scrutiny of these certificates by the Commissioners must be perfectly inexplicable to anyone who knows anything of the facts. The Commissioners do not even go through the farce of inquiring into the nature of the case, the accuracy of the allegations made, or the *bona fides* of the persons making them. The keeper of the asylum is the only person who has any check on the medical certificates given outside, in the sense of judging whether the statements made in those documents are true or false; and, in the case of the keeper of private asylums at least, this person is directly interested in the retention of the patient placed under his care. It is an unjustifiable and misleading pretence on the part of the Commissioners that they exercise any protective control over the certificates. This is perfectly well known at Whitehall; and we cannot understand how it comes to pass that it has not been avowed, in the House of Lords at least, that the Commissioners cannot possibly do more than look to the clerical fulfilment of technicalities in regard to the way in which the forms are filled up. As regards the private asylum system, there is nothing to add to what we have already said on the subject—namely, that it is wholly antagonistic to the interests of public safety. Meanwhile, we think the time has come when the medical profession should clear itself from the discredit of being connected with such a system, and when the College of Physicians, which forbids its members to enter into professional partnerships, should set its face also against this trade in lodging-houses for lunatics. The election of members who are engaged in this lodging-house-keeping to the Fellowship of the College is an enigma we have never been able to solve.

We do not wish to sit in judgment on the particular case which has just been decided, so far as the medical men are concerned. The manner in which the procuring of certificates in this case was carried out, and the manner in which the supposed lunatic was examined and the forms were filled up, do not strike us as being either better or worse than the methods of procedure adopted by men more eminent than those engaged. We do not think any member of the profession engaged in lunacy practice has a right to cast a stone at those of his brethren who have been in this instance "found out." The eminent specialist who leans his arm on a mantelshelf and asks a few questions on general topics without taking any step to ascertain the physical state of his patient, albeit and paradoxically the distinguished physician may not believe in the existence of anything outside the organism, and may regard mind as brain-function, and nothing more; and the eminent specialist who spends two hours in the discussion of a question of spiritualism with the patient he is examining, are not in a position to complain of the manner in which the medical men concerned in the recent case discharged their "duty." It matters little how an essentially bad thing is done. We have no hesitation in affirming that, except in cases where the certificate is needless because the case is plain to everybody, an opinion formed at a single interview must be untrustworthy. Of course there are cases of brain and nerve disease, such as general paralysis of the insane, brain-softening, and the like, on which a rational diagnosis may be made, but these are cases which the profession generally understands. We do not deny that special study of the pathology of the nervous system as a whole, or of the brain in particular, may enable a physician to recognise cerebral disease by the abnormalities of cerebral function. This is a distinctly scientific position to take up. Meanwhile we do deny that a knowledge of medicine in the broad sense renders it possible to recognise mental disease, or to discriminate between eccentricities and delusions without the application of precise scientific tests. The members of our profession who have been assailed in this case have our sympathy, not because we entertain the smallest doubt that what they did was unwise, and in that sense wrong; but because we fail to see that they have done anything worse than is done daily by more eminent men around them, and that will and must

continue to be done until the law is altered, and the scandal of the lunacy system as a whole permanently effaced.

THE subject chosen by Dr. MILLER ORD for his Address in Medicine, delivered this week at Belfast before the British Medical Association, is one which illustrates in a striking manner the tendency of modern thought towards a neurotic system of pathology—not, indeed, in the old sense of the predominant influence of nerve action throughout the whole range of disease, but yet ample enough to prevent its full exposition in the limits of a lengthy and closely reasoned address, abounding in clinical facts. The address will do much to attract attention to this interesting and fertile field, which has been explored already on so many sides, and in which Dr. ORD himself has done much to elucidate the inter-relations of morbid states. No one can doubt in the present day the very close and direct connexion subsisting between the processes of nutrition and secretion and the nervous system. Examples of such a connexion are daily before us, and new instances are being constantly brought to light. Often the knowledge depends more upon inferences derived from the clinical course of diseases than of such positive proof as the morbid anatomist or the physiologist would demand. But the examples are now so numerous, and those in which obvious nerve lesions are present are so similar to those in which such changes are wanting, that there is little room for escape from the conclusions arrived at.

Prominent among such disorders of nutrition, or, as Dr. ORD terms them, "neurotic dystrophies," are affections of the muscles and joints, and the first alluded to in the address was muscular atrophy dependent upon articular disease. It has been observed that such wasting may occur out of all proportion to the disuse of the limb, and a well-marked instance was quoted from M. CHARCOT of atrophy of the vasti muscles in a case of traumatic arthritis of the knee. M. CHARCOT—whose name is inseparably associated with this subject—explained the muscular condition in that case by the transmission of nerve influence from the diseased joint to the spinal cord, which operated upon the centres governing the nutrition of the muscles connected with the joint—an argument which receives support in the occurrence (in a case recorded by BURGER) of an arthritis of the knee, set up after fracture of the thigh apart from any continuity of the inflammatory process. From these comparatively simple instances of trophic disorder in limbs, excited through the action of the spinal cord, Dr. ORD passed to consider the wider question of similar lesions being produced by central disease or by reflex irritation from sources other than parts of the limbs. The similarity of the joint affection in tabes to the lesions of chronic rheumatic arthritis—a similarity that has led many to be sceptical as to the propriety of separating "tabetic arthropathy" from the more general affection—is suggestive of a common bond in nerve disorder. The connexion of muscular atrophy with affection of the anterior grey cornua of the cord is well established; and very interesting is the observation made by Dr. GULLIVER of a case of progressive muscular atrophy complicated with a painful affection of the shoulder. Pointing in the same direction is the muscular wasting and other dystrophic phenomena associated with chronic joint disease, and especially chronic rheumatic arthritis, a condition of muscles which bears very marked resemblance to that of progressive muscular atrophy. Nor do these clinical facts by any means exhaust the catalogue of conditions which suggest more than has yet been capable of proof. Thus, Dr. ORD related the details of a case of severe and painful progressive rheumatic arthritis, which was initiated by a chill, affecting particularly the spinal cord. SENATOR, indeed, argues strongly for the nervous origin of rheumatic arthritis, and appeals to the symmetrical distribution of its lesions in support of the view, an argument which, as Dr. ORD points out, was so forcibly used by Sir JAMES PAGET as affording evidence of a blood disease.

The considerations thus advanced, which all point to the direct interference of the nervous system with the nutrition of the limbs and their articulations, were turned to excellent account by Dr. ORD in dealing with the chief subject of his address—a subject which, it may be remembered, he brought before the Clinical Society of London a few years ago. His contention is that the nodular form of chronic rheumatic arthritis (digitorum nodi of HEBERDEN) is intimately associated with uterine irritation. And the abundance of clinical facts advanced in support of this argument goes far to justify it. For not only is the affection far more common among women, but it is closely connected with dysmenorrhœa and other symptoms of disordered uterine function; whilst in several of the cases detailed by Dr. ORD relief from the joint disease was not obtained until the climacteric was reached. This association has been pointed out by others, but hitherto it has generally been considered that the connexion depended upon an altered blood state rather than on nervous influence. Thus once more we seem to be confronted with the well-worn controversy between humoral and neuristic pathologists. When, however, we consider all the allied facts which Dr. ORD has marshalled, it does not seem so irrational to invoke the agency of the nervous system to explain these striking disorders of nutrition. At least it may be conceded that the humoral view is quite as open to criticism, and in point of fact less capable of explanation. Dr. ORD, however, is not contented with this; and fully confident of the security of his own position, he advances still further against the humoralists, claiming gonorrhœal rheumatism to be a neurotic disorder. In so doing he has pushed the doctrine he advocates almost beyond due limits; and yet for those who admit the truth of the previous reasoning, it is not difficult to follow him here. Certainly it is curious that gonorrhœa in women is seldom (Dr. ORD seemed to say "never") associated with rheumatism, as it is in the other sex; but for all that few will, without further evidence, adopt the doctrine laid down at Belfast, that the relatively great excitability of the prostatic part of the urethra (*quoad* the spinal cord) accounts for the supervention of arthritis in cases of gonorrhœa or urethritis. Naturally the mind reverts to examples of "urinary paraplegia," and Dr. ORD did well to adduce them in support of his views.

It would, we venture to think, have been better had the address ended here. It had arrived at a climax of no small importance, and up to this point doubtless it fully engaged the attention of the audience. We can imagine that they

would have been contented with this, having received sufficient material for thought and contemplation. So it was rather hard upon his hearers for Dr. ORD to have started off anew to consider the subjects of glycosuria and its relation to nerve influence, the mechanism of the occurrence of intercurrent inflammation in diabetes, and the nervous relations of myxœdema, full of interest as these subjects are. There can be no question as to the interest of the address, nor as to the wealth of clinical material whereby it was illustrated; whilst many will be grateful to Dr. ORD for having chosen a definite subject in preference to dealing in generalities; in pointing the paths open to inquiry rather than staying to admire what has been already achieved; thereby making a really useful contribution to medicine, and one worthy of the occasion on which it was delivered.

IN view of the increasing tendency to treat pelvic disease by abdominal section, any trustworthy statistics are valuable. In the case of cancer of the cervix uteri, the frequency of the disease makes the question of treatment one of ever-persistent importance. A contribution of great value bearing on this matter has lately been added to our knowledge by PAWLIK, who gives us careful records of 136 cases treated by the galvanic cautery in the first gynæcological clinic of Vienna, and kept as far as possible under observation from the date of operation. When we mention the fact that the cases extend back to the year 1861, the importance of PAWLIK'S report will at once be perceived.

The mode of operation adopted has been that of the galvano-caustic wire, which (in spite of an apparently theoretical preference for cutting instruments) has been found to furnish the best results. The details of the operation are given at length, and comprise the principles of getting, if possible, beyond the disease, and performing the amputation through healthy tissues. This is effected by seizing the cervix or vaginal wall (if encroached upon) with the volsella forceps and sharp hook, taking care that the loop lies beyond them. A caution is given to tighten the loop very slowly, especially in cutting through the periphery, in order to prevent bleeding; and to avoid making a premature circuit by allowing both wires to touch the steel instruments, by which accident the écraseur becomes simply a cutting instead of a burning instrument. If it is acting well, a seething noise can be heard on auscultating above the pubes. The part removed is examined to see whether (*a*) the peritoneum has been opened, and (*b*) the disease has been entirely removed. The peritoneum contrasts with the charred surface by its cartilaginous glistening. Imperfect removal of the disease is seen by the cut section not appearing homogeneous, but lighter in colour and exuberant. The peritoneal wound is generally of little moment. The imperfect removal of the disease must be supplemented by the scissors, galvanic cautery, or thermo-cautery. The slough generally separates on the tenth to the fourteenth day, by which time the peritoneal wound (if present) is generally healed. The granulating surface is then stimulated from time to time by lunar caustic. There is nearly always cicatricial narrowing or even closure of the canal, sometimes producing considerable menstrual retention. To avoid this the sound should be frequently passed. The author also adds that pregnancy, which under the circumstances is disastrous, is thus abolished. Patients rarely obey orders to attend regularly, and therefore complete closure is infrequent. In this case the canal has to be opened or manufactured, by trocar, knife, or metrotome. After incision nothing should be done for three weeks, lest peritonitis &c. supervene; and then the sound should be passed in order to break down any adhesions which may have formed.

The results obtained by PAWLIK are as follows:—Patients who died in hospital, 10; of these, 1 died from recurrence of the disease nearly four months after the operation, 1 from marasmus twenty-five days after, 8 shortly after (3 from anæmia, and 1 from peritonitis). Patients lost sight of, 22; of these, however, 2 were known to be in good health two years after the operation. Patients who left the hospital not cured, 16. Patients who died outside the hospital, 31; of these, 16 died probably from recurrence (1 three years after the operation), 1 had a return *near* the uterus two years after the operation, the cicatrix being unaffected, and 3 died of tuberculosis. Cases which relapsed, 22 (date of death unknown); among these, 1 patient remained in good health for six years, 1 for nineteen months, and 2 had cancer outside the uterus, the cicatrix remaining intact. Patients who died in childbed without recurrence, 2; one in seven years and a half, the other one year later. Those who remained in good health numbered 33—viz., nineteen years and a half after operation, 1 (seen in good health nearly twenty-one years after operation); twelve years after, 2; eight years after, 3; seven years after, 3; five years after, 3; four years after, 2; three years after, 5; two years after, 7; and one year after, 7. With regard to the very important question of the correct diagnosis of malignant disease, a microscopical examination is expressly reported in the following cases, which remained healthy: 1 nearly twenty-one years, 3 twelve years, 5 ten years, 6 eight years, 12 six years, 18 three years, 19 four years, 29 two years, and 33 one year, after the operation. The peritoneal cavity was opened thirty-nine times behind, and once both in front and behind; of these patients, 4 died—2 of anæmia and 2 of peritonitis. Hæmorrhage occurred during or immediately after the operation six times; in 5 cases it was checked by styptic cotton, and once by the cautery. Secondary hæmorrhage occurred in 13 cases; once on the eighth day, twice on the ninth, and once on the tenth, eleventh, twelfth, thirteenth, and seventeenth days. Vesico-vaginal fistula occurred on separation of the slough three times; in one instance this was due to rapid return of the disease, which had been imperfectly removed. Parametritis only occurred once.

The matter is so important that the foregoing facts ought to be known. The disease is manifestly localised, and not general, in many cases, and a hope of cure is therefore not to be absolutely denied. Necropsies have shown thickening in the neighbourhood of the growth to be sometimes purely the result of inflammation, and not of malignant infiltration. The operation for extirpation of the uterus by abdominal incision is most difficult, unsatisfactory, and perilous; the vaginal operation, though generally preferable, is not much more satisfactory; and the ultimate results of cases of extirpation of the uterus for cancer show that even this operation by no means ensures against return of the disease. Practice with regard to the affection seems to have sepa-

rated itself into two widely divergent lines: on the one hand, to remove the disease only in those cases in which a protuberant mass presents itself; and, on the other, to treat the disease by extirpation of the whole organ. The latter appears to be an unnecessary operation in many cases, the disease having a frequent tendency to extend laterally instead of vertically. The former implies the abandonment of some women whom a more hopeful view might have helped to cure, and very many of whom might have been relieved. Even where the uterus is fixed, an operation sometimes produces happy results. A woman, for instance, may have fever, sweating, and all the symptoms of septic intoxication; the disease is partly (and, it is true, imperfectly) removed, the symptoms instantly subside, and she enjoys a period of what seems to her perfect health. The result of PAWLIK'S statistics will probably be that we shall hear less of extirpation of the uterus and more of removal of the cancerous cervix.

THE address on Physiology, delivered at the Belfast meeting by Professor REDFERN, deals chiefly with the broad general truths of physiology, and is an endeavour to trace the recent advances in histology and in physiological pathology and their application to medicine and surgery. The subject is a difficult one, but the Professor exhibits a large and varied knowledge of modern work, and with this object in view he cites numerous observations and experiments. He cordially agrees with the doctrine explicitly laid down by Professor HUXLEY, in his Presidential Address to the British Association for the Advancement of Science, that all living matter has been derived from previously living matter of its own kind, and that all living beings and living tissues have originated from fragments of previously living beings or tissues, which, when detached, carried the properties of their parents with them. He shows how living matter presents alterations proceeding both from inherited predisposition and from the action of external changes, and he dwells in particular on the relations that exist between the blood and the tissues and the influence of agents affecting the tone and vital properties of the vessels. To illustrate his statements, he adduces the observations of WILLIAMS, who showed the effects of applying solutions of capsicum to the web of the foot of the frog; the experiments of LISTER, who demonstrated the delicacy of the relations between the walls of the bloodvessels and the circulating fluid; those of COHNHEIM, who described the effects on the diapedesis of white corpuscles in arresting the circulation through certain vessels for two or three days; and those of SANDERSON, who himself citing the remarkable phenomenon of the migration of white corpuscles into pieces of dead membrane inserted into the peritoneal cavity, and the difficulty of maintaining that the migration of corpuscles is in such instances due to an increased attraction between them and the tissues, arrives at the conclusion that we are returning to the notion of JOHN HUNTER, who accounted for the inflammatory blush by referring it to the action of the vessels. But important as the vessels are in bringing pabulum to the tissues, in the active discharge of their function, they still hold a secondary position as compared with those more intimate relations which exist between the blood and the tissues themselves. "Here," as the Professor observes, "is the real laboratory of the system; the place where the work of the body is done." The vessels, indeed, supply a larger or smaller quantity of the fluid plasma, in which all the tissues are bathed, in proportion as their demands are greater or less at one time than at another; but it is the business of each tissue to select, both as to character and amount, all it requires, and the energy with which this is effected is well shown by the high pressure at which the cells of the salivary gland excrete saliva.

In order further to elucidate the deeper relations existing between living and non-living matter, and the processes by which growth and nutrition are effected, the Professor next proceeds to consider the anatomical relations of the tissue elements to the lymph spaces, and to the contents of the lymph spaces, and lightly sketches the histological observations of v. RECKLINGHAUSEN, KLEIN, and others—showing that such spaces are far more widely distributed through the body than was formerly imagined; additional proofs of the important part they play in the economy being obtained by the immediate effect of endermic injections, now so familiar to all practitioners. The rapid absorption—a process that has indeed been actually witnessed—of milk and other fluids from the peritoneum, and the mode in which, if CREIGHTON'S observations are correct, the chyle is taken up from the intestines, the cells themselves forming the epithelium of the lymphatic spaces, or at least being immediately continuous with these spaces, and constituting the agents of absorption. The contents of the lymphatics are composed of plasma and corpuscles, and the mode of origin of the corpuscles has a special interest, since it affords some clue to the manner in which the blood-corpuscles are constantly being renewed and large losses of blood are repaired; and the organs in which the lymphoid cells are produced have been shown by recent research to be extraordinarily great, for, in addition to the lymphatic glands, the spleen, the adenoid tissue of the intestines and mucous membranes generally, the cancellous tissue of bones and many other parts, are all engaged in the production of leucocytes, the destination of which, obscure as the intermediate stages are, seems to be the renovation of the blood. From the lymphatic system Professor REDFERN travels by an easy transition to the domain of pathology. He refers to Sir JAMES PAGET'S investigations into the processes of repair, to the observations of ZIEGLER on the mode of recovery from burns, to the communication of syphilis by inoculation, and to what he rightly terms the most difficult, exciting, and important problem of the day—whether other diseases than small-pox can be deprived of their virulence by vaccination. If PASTEUR'S hopes in this respect are verified, it may perhaps be the glory of some future period to render even hydrophobia innocuous. In the meanwhile, investigations of this kind are left to the ardour of private individuals; and in this country, at least, Professor Redfern laments, little aid is afforded by the public, who, in the mischievous legislation of the few last years, are opposing the efforts of those whose labours would prove of the greatest possible benefit to them.

A SELECT COMMITTEE is to be appointed next session to inquire into the subject of the multiplication of overhead telegraph wires in the metropolis.

Annotations.

"Ne quid nimis."

THE HEALTH OF PARIS.

DURING the recent discussion in the French Chamber on the sanitary condition of France, M. Paul Bert described France as being, next to Spain and Turkey, the most backward European country in sanitary matters. With especial reference to the health of Paris, he stated that the deaths in that city exceeded by 8000 per annum the number returned in London, after allowance for the different populations of the two cities. It is much to be regretted that the Chamber rejected the proposal for the appointment of a committee on sanitation, more especially as M. Bert's figures very much understated the excess of mortality in Paris compared with that in London. The annual death-rate in Paris during the five years 1879–83 averaged 27·1 per 1000, while the annual rate in London during the same period did not exceed 21·4 per 1000. To make these rates strictly comparable, however, it is necessary to take into account the relative age constitution of the populations of these two cities. The proportion of children aged under five years in Paris is scarcely more than half that in London, and this difference is but slightly compensated by a small excess in the proportion of the Paris population aged upwards of sixty years. Indeed, the age distribution of the Paris population is so favourable to its death-rate, that by applying the English life-table rates of mortality to each of five groups of ages its normal death-rate is found to be only 19·92 per 1000; whereas the normal death-rate of the London population obtained in a similar manner is 21·79. As the *normal* death-rate in London is 9·8 per cent. higher than that of Paris, it is necessary to raise the recorded death-rate in Paris by 9·8 per cent. for difference of age distribution, in order to make it fairly comparable with the recorded rate in London. The Paris annual death-rate for the five years ending 1883, thus corrected, becomes 29·8, which is 8·4 per 1000 above the London rate for the same period. The true excess of mortality in Paris, compared with that in London, is therefore more than double that stated by M. Paul Bert, and urgently calls for a thorough reform in the sanitary organisation of the French capital. In 1883 alone more than 2000 deaths from typhoid fever were recorded in Paris, which, although showing a marked decline from the still larger number in 1882, were equal to a rate nearly four times greater than the rate from the same disease in London. It may be hoped that the force of public opinion in Paris may induce the French Government to adopt some measure similar to that which was last week supported by M. Bert, and was only defeated in the Chamber by 219 votes to 193.

SIR WILLIAM MAC CORMAC'S ADDRESS ON SURGERY.

THE executive of the British Medical Association decided that there should not be any special Association Address in Surgery this year, and we therefore turn to the address delivered by Sir William Mac Cormac as President of the Surgical Section as the leading contribution to this branch of science at this meeting. Sir William Mac Cormac chose not to dwell on any of the special scientific problems now exciting the interest and thought of surgeons, but preferred rather to detail certain operative successes of his own. He first related two cases of gastrostomy for malignant disease of the œsophagus, in which he was enabled to postpone the second step of the operation in the one case for fourteen days, and in the other for seven weeks. In his remarks upon these cases he urges the importance of resorting to the operation early, so that the surgeon has sufficient time to secure the firm adhesion of the stomach to the parietes before it is necessary to open the stomach. This caution was, however, carried too far in his second case, for there is no practical advantage in allowing seven weeks to intervene between the two steps, and this patient was obviously operated upon five weeks too soon. Sir William Mac Cormac then detailed sixteen cases of radical cure of hernia performed either primarily or as a sequel to the relief of strangulation of the bowel. Of these, thirteen were quite successful. The method adopted was to excise the sac and ligature its neck with, in some cases, suture of the ring or rings, although Sir William does not place much value upon the latter step. This series of cases is very good, and they will, no doubt, help surgeons generally in adopting the practice which has been advocated and practised by some few, of converting all operations performed for the relief of strangulated hernia into the radical cure of the affection. The last case recorded is one of excision of a large goitre. There were no special features in this case beyond the large size of the tumour, its great vascularity, and the consequent difficulty and long duration of the operation. Sir William is evidently of opinion that the fear of inducing the cachexia strumipriva must not be allowed to prevent surgeons interfering in otherwise suitable cases, and he thinks that this sequela is only to be expected when the operation is performed upon children or adolescents.

BEER-DRINKING AND HEART DISEASE.

THE most essential factors of the living heart are unquestionably its neural and muscular elements. It may seem superfluous to assert so plain a truth; nevertheless, the necessity of bearing this fact in mind is demonstrated by every-day experience. If the heart be the subject of debate amongst medical students at our hospitals, how much do we hear of the murmurs and how little of the condition of the myocardium! Our present object is to draw attention to a class of cases which have not received the wide study they deserve. Idiopathic hypertrophy and dilatation of the heart are not phrases which carry their own credentials. To speak openly, the term "idiopathic" is regarded by scientific physicians as a pleonastic cloak for our ignorance. Cardiac hypertrophy of idiopathic sort is said to be of common occurrence in Munich as compared with other cities. Spatz found that of 638 men no less than 35 were affected with so-called myocarditis. Among 433 women there were 23 cases. Of 290 men between the ages of thirty and sixty, there were 41 cases of myocarditis, or about 14 per cent. Of 144 women at the same period of life, only 10, or about 7 per cent., were affected. Hermann's reports showed 49 cases of muscular disease of the heart in the male among 305 necropsies, whilst only 3 females had this condition. Von Buhl looked on these instances of cardiac hypertrophy as the result of chronic myocarditis, which usually ended fatally in consequence of fatty degeneration of the muscle. Bollinger, who has restudied this subject, cannot find any evidence of inflammatory changes or fatty degeneration. At his suggestion, Schmidebauer undertook to establish the extent of the prevalence of cardiac hypertrophy in Munich upon a statistical basis, with a view to making clear its causation. Among 1000 necropsies there were 46 cases (32 men and 14 women) in which the cause of death was attributed to simple hypertrophy of the heart. As an associated condition, not as a cause of death, idiopathic hypertrophy of the heart was found in 33 other cases (23 men and 10 women). All cases of enlargement of the heart due to lesions of the valves, or disturbances of the pulmonary circulation, or associated with arterial sclerosis, or granular kidneys, were said to be excluded. Some of the cases were attributed to prolonged muscular effort. But the greater number were believed to be due to habitual excess in beer drinking, attended with a

true plethora or overcharge of blood. It is argued that the habitual consumption of beer in large quantities tends to enlarge the heart by the direct action of the alcohol on its tissues, by the increase in the amount of fluids in the body, and by the belief that the nutritive ingredients of the beer are easily assimilated. Statements are made to the effect that the average weight of the heart in men is relatively greater in Munich than elsewhere. Both sides of the heart participate in this hypertrophy. It may naturally be asked how it is that sufferers from simple hypertrophy are prone to die of an affection which apparently contains no fatal elements in its composition. The phrase simple or idiopathic hypertrophy is in this respect misleading. Exhaustion of the nervous apparatus without obvious disease of the muscular tissues is the proffered explanation of the fatal result—an explanation not altogether free from valid objections. As an interesting fact it may be stated that during the year 1882 the average amount of beer consumed by each person in Germany ranged, in different districts, from 54 to 186 litres, in Bavaria it reached 233 litres, and in Munich 432.

SCHOOL PRESSURE AT THE HEALTH EXHIBITION.

IF nothing essentially new was elicited at the discussion on School Hygiene on Tuesday, the views of those who believe that education is taking unhealthy and unnatural forms were stated with new force and clearness. Mr. Teale's paper, in particular, was a bold and clear indictment of the existing system, with its ever-multiplying examinations, its premium on cram and cleverness, and its want of respect for good, general, and sensible results. Mr. R. Brudenell Carter was equally explicit in saying that the present system was injuring the eyesight. Defects of sight were increasing, and in one board school in London, he said, no less than one-fourth of the children were suffering from such defects. A word was said by Mr. C. E. Shelley, M.B., in defence of old-fashioned methods of corporal punishment, "which modern sentimentalism seemed inclined to abolish altogether," but which, by the way, are not altogether extinct. Sir Joseph Fayrer wound up by pointing out the evil results of children having to prepare lessons at home in the evening. The fact is that we ought to make education more pleasant, healthy, and natural, and should remember that the world does not exist for clever children, but for ordinary ones. The success of our methods should consist in turning out the largest number of healthy, happy, and capable pupils, not in creating a few prodigies.

THE CHOLERA GERM AND ITS DISCOVERER.

OUR correspondent in Rome writes:—Professor Filippo Pacini of Florence, the discoverer of the tactile corpuscles which bear his name, contributed in 1854 to the *Gazzetta Medica Italiana* a paper on the cholera visitation, in which occur the following words:—"Esaminando minutamente le diverse parti del tubo gastro-enterico dei colerosi morti nello stato algido, dovei convincermi che quella lesione epiteliale non è coperta da altri che da *un organismo semplicissimo e di estrema tenuità, che io appellerò microbio* con termine generico e moderno e specialmente *microbio colerigeno*." (Examining minutely the different parts of the gastro-enteric tube of subjects dead from cholera when in the algid state, I was forced to the conviction that that epithelial lesion is covered by nothing but a very simple organism of extreme tenuity, which I shall call "microbe," a term generic and modern and with special reference to the disease in question, "cholerigenous microbe.") As usual, this pregnant discovery was more quickly and thoroughly appreciated by foreigners than by its author's own countrymen, and in 1865, on the next cholera visitation, Pacini wrote:—"Quando i miei lavora scientifici dall' Europa saranno tornati a Firenze abbigliati alla foggia straniera, potranno avere il permesso di entrare nelle scuole e allora noi saremo nel placido riposo di Trespiano." (When my scientific labours, having made the tour of Europe, will have returned, arrayed in foreign garb, to Florence, they will have permission to enter the schools, and then we shall be enjoying the tranquil repose of Trespiano—in our grave, in short.) This bitter forecast has been verified almost to the letter, Pacini's doctrine, rehabilitated by the German Cholera Commission, being now adopted by his compatriots and taught in the Istituti Pathologici of Italy a year after his death.

SMALL-POX AT THE DIAMOND FIELDS.

FROM the *Port Elizabeth Telegraph* of June 28th we learn that at that time small-pox was spreading with alarming rapidity at the Diamond Fields. There were over 300 cases at Dutoitspan. The lazaretto accommodation was unequal to the demand upon it, and persons stricken with the disease had to remain outside. The virulence of the epidemic showed no signs of abatement as to mortality, for, according to Dr. Sauer, the death-rate was 25 per cent. The time has surely come for the most vigorous attempts to free the colony from this deadly plague. We trust that the medical men who have so persistently refused to accept the opinion of the bulk of the profession will now see their way to acknowledge the inaccuracy of their diagnosis, and generously aid the authorities in their attempts to stem the torrent which threatens to swamp the community. If we mistake not, Kimberley and the adjoining districts will have enough, and more than enough, to do to cope successfully with an epidemic that heeds neither the caprice of fortune nor the folly of indifference. It seems incredible that the Government should not ere this have awakened to a sense of the enormous responsibility cast upon it. If the local authorities are powerless to meet the exigencies of the case, it is surely time for the central executive to step in and not only indicate the course of action, but provide also the means of carrying their recommendations into effect.

LEFT HEMIPLEGIA AND APHASIA IN A RIGHT-HANDED PATIENT.

CASES of left hemiplegia and aphasia in which the patient was not left-handed possess considerable interest to cerebral physiologists. M. Michel Catsaras has recorded an instance of this combination of facts in *La France Médicale* of July 17th. The patient was a Greek, aged thirty-five years, a broker by profession, and enjoyed good health till August, 1883, when his wife noticed that his mouth was drawn to the right. At this time there was no other symptom of disease. The facial palsy is said to have passed away in a fortnight without treatment. At the end of September, whilst in a café, the man was seized with a fit, fell down unconscious, and remained in this condition for half an hour, at the end of which time he came to, and it was discovered that the left side was paralysed and the faculty of speech was gone, with the exception of the words meaning water and bread. To every question asked he replied νερο and ψωμι. He understood everything that was said to him or what he read, and could write perfectly what he thought. After fourteen days the hemiplegia and aphasia had so much passed away that he was able to go to work again. According to his wife, however, he did not please his clients. During the month of November the patient suffered much from nausea, thirst, and hunger. On January 20th, 1884, a fresh attack of unconsciousness set in, which was followed by profound aphasia and left hemiplegia; he could neither speak,

write, read, nor understand much that was said to him. M. Catsaras diagnosed thrombosis of the right Sylvian artery. The case does not seem to have been followed by an autopsy. The author thinks the notion of lesions in the two hemispheres not tenable, and suggests that in this case the pyramidal tracts did not cross at all. Dr. Hughlings Jackson described a case of aphasia with left hemiplegia in a right-handed person in THE LANCET of April 24th, 1880.

THE PRESIDENT'S ADDRESS AT THE BRITISH MEDICAL ASSOCIATION.

THE presidential address with which Dr. James Cuming opened the fifty-second annual meeting of the British Medical Association, held this week at Belfast, was a dignified and scholarly production. Wisely refraining from dwelling upon the topics of local interest that so often form the staple of these utterances, Dr. Cuming dealt mainly with the most pressing questions of the medical science of to-day, and did good service in drawing attention to the directions in which the profession should work to advance the knowledge of disease and the power to cope with it successfully. He did well to remind us that apart from the valuable researches which now engage so much attention, and which tend so much to show that the ancient doctrine of disease being in the main the result of external agencies is not far from the truth, there are great questions to be solved respecting racial proclivities and individual tendencies which are open for inquiry by the collective research of all practitioners. For important as is the knowledge gained from the study of the part played in etiology by the numberless forms of micro-organisms that have been revealed to us by the patient research of the pathologist, and valuable as such knowledge may come to be in showing us how to prevent and cure specific diseases, it would be folly to lose sight of the larger facts that need no microscope for their detection. Another warning, not less needed, was given in this address, to the effect that anatomical investigations should not be allowed to eclipse the facts gained by clinical observation. It was this which Trousseau feared, and against which he used to declaim, perhaps with too much bias; and it was happily illustrated by Dr. Cuming in the much-debated subject of scrofula and tubercle. The morbid anatomist declares for an identity, while the clinical observer sees nothing more than a kinship; and he is the true pathologist who, taking into account the morbid condition as observed in the living patient, applies that knowledge to explain the changes that dissection and microscopical investigation reveal to him. In a like spirit Dr. Cuming adverted to the advances that are being made in pharmacology and therapeutics, and he maintained that the scientific pursuit of medicine is not to be shackled by the methods followed in physical science, whilst adhering to the general principles that govern all scientific research.

UNRIPE AND UNSOUND FRUIT.

AFTER so many former warnings as to the close connexion between unripe or too ripe fruit and disease, it may be doubted whether further remarks will convey any fresh information on the subject. The advance of cholera on the Continent gives a new and important interest to all such observations, since no better conditions for the spread of that disease can exist than such as are furnished by the presence in the market and the household of unsound fruit. It is true that legislative interference with a subject of this kind might be overdone, and is but little needed on behalf of the better educated and wealthier classes, for with them unsuitable fruit does not find much acceptance. The poorer population, on the other hand, have much greater difficulty in selection. Their fare must be cheap, and cheapness in regard to fruit signifies—though it need not and should not—unripeness, over-ripeness, or damage, far more often than mere poorness of quality. In their interest some legal control over fruit-sellers is necessary, and no doubt is already exercised in glaring cases. A greater degree of stringency, however, is called for, and would not be oppressive. Supervision, in order to be effective, should be rigidly enforced at the central markets, and also to some extent at the stalls of street vendors.

PROFESSOR DE CHAUMONT ON DISINFECTANTS.

NOT the least valuable part of Professor De Chaumont's lecture at the Health Exhibition on cholera and its prevention was that in which he exposed the untrustworthiness of many so-called disinfectants. The belief in a few of these disinfectants has come to be almost a superstition, and it has been too much played upon by some sanitary authorities, and even medical officers of health, who in times of small-pox have covered all available hoardings in the parish with posters vaunting the epidemic virtues of disinfectants. Professor De Chaumont said: "In regard to disinfectants, there is but one true disinfectant—viz., fire. The majority of so-called disinfectants are simply deodorants. The idea that tobacco smoke or the odour of camphor is destructive of contagion is still extensively held, though it is simply absurd. A true disinfectant is a substance that will kill the germ or living particle in which the contagious principle resides, or through which it is conveyed." Of true disinfectants, as Professor De Chaumont says, undoubtedly heat is the most reliable, though others are not to be despised, such as carbolic acid, chlorine, and sulphurous acid gas.

MEANS OF ISOLATION AT LIVERPOOL.

THE question of the erection of a hospital for infectious diseases for Liverpool has entered on its most difficult stage. No site can be suggested without at once raising the problem of the extent to which small-pox patients may be aggregated together without danger to the surrounding community. The present proposal evidently relates to a large hospital which shall endeavour to cope with the existing epidemic, and to such a hospital in the vicinity of Wavertree-park objection is taken by an important section of the public and of the press. We have already expressed an opinion against the aggregation of cases of small-pox in large numbers; we have advocated the establishment of several hospitals instead of one in the case of populous places like Liverpool; and everything that takes place in connexion with this subject goes to confirm us in these opinions. The Hospitals Commission evidently held the same view when they urged that no small-pox hospital in the metropolis should be capable of receiving more than some forty acute cases, and the Fulham experience, on which this recommendation was based, was conclusive in the same direction. Whilst we cannot but sympathise with the corporation in their attempt to overcome the difficulties which face them in the almost impossible task of dealing with an existing epidemic by measures of isolation, yet we feel that their opponents have just grounds for their suspicions of possible mischief. The attempt to deal in an emergency with an epidemic which has already widely diffused itself is by no means promising, and it is already surmised that the temporary sheds advocated cannot be ready in time. If the Liverpool corporation were to take advantage of the present crisis to secure several sites, at each of which some permanent buildings could be erected which would serve for the isolation of the several infectious fevers, the opposition which they are meeting with might subside, and they would then be prepared to cope with other diseases as well as small-pox; whereas, so

far as our experience goes, extensive small-pox sheds never serve for the isolation of other diseases, and they tend, by the aggregation of the most tenacious of all infections, to produce the very evil which they profess to obviate. Indeed, according to local information, Liverpool itself affords one of the most recent proofs of this result.

DIPHTHERIA AT BIERTON.

AN interesting report on a recent outbreak of diphtheria at Bierton has been issued by Dr. R. H. Hilliard, medical officer of health to the Aylesbury Rural District. Some were well-marked cases, with characteristic symptoms and sequelæ, others were mild and of an indefinite type, and others, again, were regarded as scarlet fever, one of these latter, however, being followed by paralysis of the soft palate. The disease would appear to have been imported by means of a convalescent who had had an ill-defined attack and to have had its spread facilitated both by the bad sanitary state of the house into which the case was received and by intercommunication between the healthy and the sick. Dr. Hilliard points out that, according to recent researches, two kinds of organisms are associated with diphtheria:—1st, the ordinary diphtheritic germ, which is easily destructible; and, 2nd, "resting spores" or germs, which are absorbed into the blood during the course of the disease. These "resting spores" can live under more unfavourable conditions than the other germs, and they resist destruction much more easily, continuing in the blood after the primary disease has ceased, and causing the sequelæ which are so characteristic of diphtheria. It is also assumed that under special circumstances they may set up the disease in others by infection, and in the instance reported Dr. Hilliard infers that these "resting spores" were still potent for mischief in the case of the barely convalescent patient who came to Bierton, and that their influence was facilitated by means of gross sanitary defects at the house to which the patient came. Whatever be the correct explanation, it is certain that under some conditions the poison of diphtheria is capable of being communicated for some considerable time after the original ailment has subsided, and this has often been explained by regarding it as capable of attaching itself to places and houses for a longer time than it does to individuals. In this case such an explanation would not account for the diffusion of the disease, but it is highly probable that the ichorous discharge from the nose and certain sores from which the convalescent was suffering was capable of communicating infection in the same way as the desquamating cuticle does in scarlet fever. Dr. Hilliard evidently inclines to this view.

SALT TAX AND CHOLERA.

ATTENTION has lately been drawn by questions in Parliament to the sufferings of the poorest classes in the Indian empire, alleged to be due largely to the difficulty of obtaining common table salt. The difficulty arises, of course, from the high price of this article of diet, the result of the imposition of a Government tax. A society, the Madras Reform Association, has for some time been seeking to procure the abolition of this salt tax. A respected correspondent, who has this matter at heart, wishes us to give some information on the possible relationship which may exist between the want of salt and the occurrence of cholera in India. So far as we know, India was the birthplace, and unquestionably is the "home," of cholera. Whether the salt tax, by rendering a physiological necessary a high-priced luxury, is responsible for the origin and continuance of cholera in India, is a question not permitting of a direct answer. No one would deny that, in a general way, disease is more prone to appear in persons suffering from chronic insufficiency of some essential article of food, and so a predisposition to cholera may be inferred to exist in those who are deprived of so important an element of food as salt. As the salts of soda are in greater excess in the fluids of the body, the diminution of salts in the blood in cases of cholera is easily accounted for by the great drain of fluids into the intestines. Precise scientific data do not exist to prove that excessive perspiration really needs to be compensated by the increased ingestion of salts; but on *a priori* grounds it would appear that such compensation should be made. It is highly probable that the deprivation of salt does tend to increase the liability of children to suffer from intestinal worms.

THE GROSS PROFESSORSHIP OF PATHOLOGICAL ANATOMY.

IN consideration of the great eminence of the late Dr. S. D. Gross as a surgeon, and his immense influence as a teacher in the medical schools of the United States, it has been widely felt that it would be a very fitting memorial of his career to establish a Professorship to bear his name in connexion with one of the American medical schools. The Alumni Association of Jefferson Medical College has inaugurated a movement to secure this, and has decided that the chair to be endowed shall be one for the teaching of Pathological Anatomy. Subscriptions towards the fund are to be sent to Dr. J. M. Barton, 1344, Spruce-street, Philadelphia. Dr. Gross had many friends and admirers in this country, and we are sure they will be glad of an opportunity of joining in such a worthy way of perpetuating the memory of a truly great man.

MEDICAL EVIDENCE v. "COMMON SENSE."

DURING the hearing of a charge of murder at the Manchester Assizes, a summary of which was given by our Manchester correspondent last week, Mr. Justice Day, in addressing the jury at the close of the evidence, expressed himself in very decided terms that the jury were compelled to stultify themselves by returning a verdict in accordance with the medical testimony, although their common sense must have told them that morally the accused was guilty. The deceased, Richard Saxon, sixty-five years of age, received on May 17th a severe blow from a hammer at the hands of his son Joseph, aged twenty-five. On presenting himself at the Ancoats Infirmary, the medical men were of opinion that the injury was not of a dangerous, much less of a fatal, nature. For the next two days deceased went to work, but at the end of that time he appears to have again lost a considerable quantity of blood from his scalp wound, and shortly afterwards to have passed into a state of coma, which ended in his death. It may be stated that the incidence of these grave symptoms was at the time of great mental excitement brought on by his dissatisfaction with the mildness of his son's sentence by the magistrate. At the post-mortem examination, made by Dr. Charnley Smith, a shallow depressed fracture of the skull was detected in the occipital bone. A partially decolourised blood-clot the size of a penny piece lay between the bone and dura mater, but there was no laceration of the brain, and no congestion or hæmorrhage in the superficial portion of the convolutions. In one lateral ventricle was a recent clot, which by its pressure had presumably been the proximate cause of death. The question the jury had to decide was, Had the original injury any causative relationship with the secondary ventricular hæmorrhage? Dr. Smith could not say that it had, and to this opinion we subscribe. It is true that, had the blow not been struck, the excitement of the deceased at what he deemed the insufficiency of the punishment inflicted on his assailant would not have arisen, and clearly Mr. Justice Day was not prepared to attach great importance to a point

so remote in its bearing on an issue of life or death. What evidence was there to justify the assumption that death might have arisen from natural causes? To our minds there was ample. Here was a man in all probability the subject of vascular disease; he was sixty-five years of age, addicted to intemperance, and crippled in one elbow from "rheumatic gout." The records of medicine show that it does not require any vast amount of physiological or physical strain to test unhealthy cerebral vessels beyond their power of endurance. From the absence of signs clearly connecting the initial injury with the apoplexy, and the presence of other conditions conducive to the attack both before and after the blow, we hold that the jury were morally as well as technically justified in acquitting the prisoner. We venture to differ from Mr. Justice Day as to the relative value in such a case of scientific testimony on the one hand and "common sense"—which by the way is often very uncommon nonsense—on the other. Dr. Bilton Pollard, of the Manchester Infirmary, was ready to support the position taken by Dr. Smith, but he was not called at the trial, as the judge ruled that Dr. Smith's evidence disposed of the case, a ruling with which we entirely agree.

THE WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM.

THE following gentlemen, being the active medical staff of this institution, have, we are informed, sent in their resignations: Drs. Heron, Dawson Williams, Wolfenden, and Huggard. The late committee of management also declined nomination for re-election at the late annual meeting, consequent on the resolution which was carried impugning their decision in a matter that has occupied their attention for some months past. Mr. Proctor has also tendered his resignation of the office of treasurer, to which he was lately appointed. A protest has been lodged against the constitution of the late meeting, and a request made to the old committee and trustees not to give up their office until the governors have had an opportunity of expressing an opinion on the present state of affairs.

AID TO THE WOUNDED.

LAST week an important trial took place at Aldershot of an electric light waggon intended for lighting the field of battle at night to enable the wounded to be efficeintly attended to. The demonstration, which was given at night, was intended to illustrate the application of the electric waggon in searching for, succouring, and transporting 100 men (representing the wounded) from the field to the dressing station, on the night after a supposed battle, by a bearer column of the Army Hospital Corps, with mule, mountain, and wheeled transport. Making allowance for the fact that there had not been time to test the machine effectually after its arrival at Aldershot, and to arrange an efficient code of signals, the trial may be deemed a success, the light being thrown over the field in such a manner as to materially assist in the search for the wounded and in applying temporary dressings. The principal drawbacks to it appear to be its weight (said to be three tons), and the difficulty which would no doubt be experienced with regard to transport. It cannot be doubted, however, that if these can be overcome the electric waggon would prove a very valuable adjunct to the surgical equipment of an army in the field. The trial was made under the personal superintendence of Baron Mundy, in the presence of a number of distinguished military and medical officers; among whom were the Director-General of the Army Medical Department, Sir Joseph Fayrer, Surgeon-General Mackinnon, Professor Longmore, and Dr. Farquharson, M.P.

THE LATE EDWARD VON JAEGER.

PROF. E. VON JAEGER, of Vienna, who died recently after a long illness, was born in 1818. His father, Frederich Jaeger, was Professor of Ocular Therapeutics at the Josephinum, so that from an early age his attention was directed to the subject that in after life he made his own. He graduated M.D. in 1844, and after some service in the army he abandoned the pursuit of medicine for a time in favour of mechanics. In 1850 he returned to the study of ophthalmology, to which the invention of the ophthalmoscope in 1851 by Helmholtz added considerable interest. In devising a less cumbrous instrument than the original ophthalmoscope, Jaeger made good use of his mechanical talent; and he set himself assiduously to study in this new field. Having examined numbers of healthy as well as of diseased eyes, he described and depicted the ophthalmoscopic appearances, thus laying the foundation of his well-known atlas. In 1856 he was named Extra-Professor, and in 1857 First Physician, to the Eye Department of the General Hospital; but it was only quite recently that he was appointed University Professor.

VACCINATION v. SMALL-POX.

LAST week we made certain remarks on the necessity and value of vaccination, as amply justifying its compulsory adoption as a preventive of small-pox. Dr. Cooper, medical officer of health for Widnes, relates a recent case which affords almost positive experimental proof to the same effect. A married woman, with an infant a few weeks old at the breast, was attacked with severe small-pox. The child was promptly vaccinated, and, though suckled throughout her illness and convalescence by the mother, did not take the disease. There can be hardly any doubt that in this case vaccination saved the child's life. Some, perhaps, may say that insusceptibility to the disease would equally account for the result. This could not be so, for in that case the vaccination, which was successful, must have failed, seeing that experiments by Ceely and Badcock, and by other later observers, have clearly shown that vaccinia and small-pox are one and the same disease. Genuine insusceptibility is a condition so rare, and so doubtfully existent, that it may practically be ignored. We have in Dr. Cooper's case a singularly concise illustration of the principle shown by M. Pasteur to apply to such maladies as anthrax and hydrophobia, and it is abundantly evident in the small-pox epidemics of this country, that the timely inoculation of a modified infectious disease will, other things being equal, infallibly prevent or mitigate the onset of a severer form.

WOOLSORTERS' DISEASE AT BRADFORD.

THE two inquests upon cases of woolsorters' disease at Bradford are still unfinished. The one is the case of Isaac Savile, in the employ of Messrs. Mitchell Brothers, who died on May 26th. The inquest was first adjourned to June 18th, and was continued on July 3rd and 21st, when it was again adjourned to August 20th, in order that the jury might have before them the new code of regulations upon the prophylaxis of the disease being drawn up by the Sanitary Committee. On the last occasion a conflict of medical opinion occurred—not, however, of much practical import. Thus Dr. Hime, the medical officer of health, who with Dr. Bell and others is assured that the deceased died of anthrax, was cross-examined at much length respecting the characteristics of the bacillus anthracis and the means taken to destroy it, and his evidence is in accord with the result of the researches of Koch and others. Dr. E. T. Tibbits, however, gave evidence to the effect that the bacillus anthracis was indistinguishable from putrefactive bacteria, and that woolsorters' disease had

no features distinct from those of blood-poisoning. The second inquiry is that on Catherine Cox, which was opened on June 30th, resumed on July 23rd, and adjourned to August 21st. Meanwhile an inquest upon a woolsorter at Saltaire was held by the same coroner (Mr. Barstow) on July 23rd. The man died in four days after the first onset of symptoms. He had been engaged in sorting Turkey mohair. Mr. Rutherford, surgeon, of Shipley, testified to the case having run the course of anthrax, and presenting morbid conditions (including the presence of bacilli in the blood) such as occur in this disease. The jury returned a verdict to the effect that the deceased died from woolsorters' disease, but that the firm (Sir T. Salt and Sons) had duly carried out all the regulations agreed to in July, 1880, by the masters and woolsorters, adding a recommendation to the firm to adopt any further precautionary measures that may be devised. Mr. Neil, on behalf of the firm, expressed their willingness to accede to that recommendation.

THE THIRD BLOOD-CORPUSCLE.

La Gazzetta degli Ospitali of July 16th publishes a memoir by Professor J. Bizzozero, "On the Pre-existence of Piastrine ("Blutplättchen") in the Normal Blood of the Mammalia." To obviate Weigert's objection, that observations on mesenteric vessels are liable to fallacy in consequence of exposure to the air, Bizzozero examined a living bat's-wing under the microscope, and he found that in all the bloodvessels, and at all times, the piastrine circulated, in addition to the red and white corpuscles. The piastrina of Bizzozero, the hæmatoblast of Hayem, is the visible form of a series to which Dr. Norris has given the general title of the fugitive discs of the blood. In a letter dated Jan. 23rd, 1882, which was published in this journal, Dr. Norris succinctly stated his claim to priority in the discovery of the existence and function of the new blood-corpuscle—a matter capable of physical demonstration, and yet in controversy between the leading histologists. Is the third blood-corpuscle a reality or an optical delusion? If the former, who discovered it, and what are its properties?

CANCER OF THE BREAST AND PREGNANCY.

As an illustration of an untoward conjunction of events leading to corresponding difficulty in treatment, M. Larger brought before the Société de Chirurgie an account of the following case:—The patient is a young married woman in the fifth month of pregnancy, and suffering from an ulcerating tumour of the breast, regarded as of an "encephaloid" nature. The general health is said to be excellent. The tumour, though malignant, appears to be strictly limited to the glandular tissue, and bled at times profusely. MM. Trélat, Polaillon, Terrillon, Guéniot, and Verneuil all advised immediate operation.

HOSPITAL SUNDAY FUND.

IT affords us great gratification to be able to announce that the amount already received on behalf of the above fund is between £100 and £200 in excess of last year's total of £33,935, and the receipt of another £500 may fairly be expected before the close of the financial year on Oct. 31st. The amount to be received from the managers of the very successful hospital *fête* held at the Health Exhibition on the evening of the 23rd ult. will be handed over by the Lord Mayor to the Council of the Hospital Sunday Fund for distribution, though separately from the proceeds of the fund.

NEARLY one hundred persons have been made ill at Brooklyn by eating ice cream in which acetate of copper was present.

IN consequence of recent legal proceedings, Sir Henry Holland has placed before the Government a suggestion that reports as to the working of the lunacy laws on the Continent shall be ordered for for presentation to Parliament, special attention being paid to the following points:—Whether there are private as well as public asylums; what are the checks against improper admission or detention of persons in an asylum; what supervision and inspection, if any, are exercised by any public and recognised authority; and the nature and powers of such authority.

A REDUCTION of 50 per cent. on the published tariff is allowed to members of the profession attending the forthcoming International Congress of Hygiene and Demography, on production of their "carte d'inscription," by (*a*) the Company for the Exploitation of the State Railways in the Netherlands, (*b*) the State Railways of Belgium, and (*c*) the Réseau du Nord Français.

AT a well-attended public meeting of residents in the neighbourhood of the Hampstead Small-pox Hospital a resolution calling upon the vestry of Hampstead to take prompt and energetic action to secure the abolition of the hospital was carried unanimously. A resolution in favour of the establishment of local hospitals for each parish or district was also carried.

MR. BAILEY DENTON, who is perhaps more widely known as a sanitary than as an agricultural engineer, has received from the French Government the distinction of the Cross for "Mérite Agricole." We believe that it is to Mr. Bailey Denton that tenants-for-life chiefly owe their power to charge their estates for agricultural improvements.

IT is stated that Sir Charles Dilke has made arrangements for an inspection by the medical staff of the Local Government Board of the sanitary arrangements at the principal ports of the United Kingdom. The inspection will, it is understood, be made immediately.

WE learn that on the 25th ult. Dr. Elder performed nephrectomy, for the third time, at the Hospital for Women, Nottingham, and that the patient so far is progressing satisfactorily.

AN eburnated exostosis of the frontal bone, filling up the orbital cavity, has been removed by M. Badal by means of mallet and chisel, healing taking place without damage to the eye or vision.

DR. BATORSKY, a surgeon attached to the department for foreign affairs, has left St. Petersburg for Bagdad, in order to join a medical board deputed to investigate the outbreak of plague in that district.

THE eighth International Medical Congress will commence its sittings at Copenhagen on Saturday the 10th inst., and the session will continue till the 16th. A full programme of the proceedings will be found in our impression of June 7th.

AT a special meeting of the Macclesfield Board of Health held on the 24th ult., a scheme proposing the expenditure of £5000 on an infectious disease hospital was rejected.

PRESENTATION.—Mr. H. W. Langdon, M.R.C.S., on his retirement from the medical charge of the members of the Foresters' Court, Devizes, has been presented with a testimonial in the shape of a handsome pair of emblems, framed in oak, and inlaid with gilt.

Pharmacology and Therapeutics.

HYDRASTIS CANADENSIS.

M. SCHATZ has employed a fluid extract of this drug in fifty cases of uterine hæmorrhage due to various causes. The results have been very satisfactory in about two-thirds of the cases. Metrorrhagia due to fibroid tumours, post-puerperal menorrhagia, and menorrhagia about the time of puberty, were the affections most readily relieved. The fluid extract has been given in doses of twenty drops three times a day. The treatment was begun a week or more before the commencement of the period of menstruation. Under its influence the duration of the catamenia was diminished and the blood discharged was lessened, and in some cases there was actual suppression. M. Fellner has investigated the physiological action of the fluid extract of hydrastis canadensis on dogs, and attention was strictly confined to the vessels, heart, small intestine, and uterus. In large doses (two to five grains) the fluid extract injected directly into the veins momentarily raises the intra-vascular pressure; but this first phase is soon followed by another in which the blood-pressure sinks permanently below the normal level, and death may ensue. When doses of 1·2 to 1 gramme are employed in the form of hypodermic injections, the lowering of the blood-pressure is less pronounced and takes longer to appear, but it is still persistent. At the same time the elevation of the intra-vascular pressure lasts a longer time. In still feebler doses the initial effect is, on the contrary, a diminution of the blood-pressure of very short duration; and the secondary effect is an elevation of the blood-pressure, which persists indefinitely. When a number of minute doses are injected in succession, the final result is the same as with a single dose. The subcutaneous injection of a strong dose (two grammes) determines, first, a transient decrease in the blood-pressure; this then passes away for a brief period, to be again followed by a fresh lowering, not in a continuous fashion, but by a series of well-marked oscillations. The results are the same when the drug is given by the rectum or stomach. Previous section of the splanchnic nerves does not appreciably modify the effects produced by intravenous injection of small or large doses of the fluid extract. The same fact holds good of compression of the abdominal aorta. Section of the cervical portion of the spinal cord does not stop the action of the drug in lowering blood-pressure. Strychnia can to a certain extent undo the effects of hydrastis on the blood-pressure. By direct inspection the small intestines are observed to be injected during the period of lowered blood-pressure, and to be exsanguineous when the blood-pressure is raised again. Hydrastis is believed thus to have a powerful effect on the vaso-motor apparatus, due to an excitation of the cerebral centres. During the first stage of the action of the drug the pulse is slowed. This delay may go on to complete arrest of the heart's action; it appears to be due to excitation of the central end of the vagus, because it does not occur when the pneumogastric nerves are divided. After the injection of large doses the slowing of the pulse with syncope is met with during the second stage, when the blood-pressure is diminished. In this stage previous division of the vagi exercises no influence on the frequency of the heart's action. All injections give rise to contraction of the womb, both of its body and horns; the maximum effect is produced a short time after the injection—later on, however, manifest contractions do take place, chiefly of the cornua. The uterine contractions synchronise with the contractions of the blood-vessels.

SIZYGIUM.

The fruit of Sizygium jambolanum, an East Indian plant belonging to the natural order Myrtaceæ, has recently been somewhat in demand on the Continent for use in the treatment of diabetes. M. Banatrala has found in three cases in which he has tried it that its use led to a diminution in the amount of urine secreted, and that it caused the disappearance of the sugar. These results were manifested in forty-eight hours after taking the medicine. During the time that the patients were submitted to the action of the drug they could take amylaceous food with impunity. The astringent rind of the fruit seems to be the active part.

HAZIGNE.

Professor Baillon has described a Malagasy plant called "hazigne" in the *Journal de Pharmacie*, the fruit of which yields an oil and the stem a resin, which are used by the natives as a remedy in certain skin diseases, such as leprosy, the itch, and ulcers. The oil obtained from the seeds is also used as food and for lamps. The hazigne is a handsome tree belonging to the Guttiferæ, and is named Symphonia fasciculata. The fruit is known to the natives by the name of "voa-sou-vouara."

PHASEOLUS LIMATUS.

The pois d'Achery is a sort of kidney bean which is cultivated in the Mauritius and used there as an occasional article of diet by the Creoles. It exists in two varieties: the one white, which is generally wholesome; the other prettily variegated, which is regarded as poisonous. The poisonous character is due, according to Davidson and Stevenson, to hydrocyanic acid, which is formed when the beans are macerated in water by a process similar to that by which it is produced in certain plants of the Rosaceæ, such as the almond and cherry laurel.

PALILLO.

A Mexican plant, which appears to be Croton morifolius, has recently been the subject of experiment by Messrs. Dages and Armendaris. Two or three drops of the oil contained in the seeds act like a moderate dose of castor oil. The natives of Mexico use the leaves of the plant in the form of infusion as a remedy against gastralgia and atony of stomach. The tincture of the leaves is said to give excellent results in neuralgia, especially of the face, either when used as a liniment or dropped into the ears, or taken in the dose of ten or fifteen drops in orange-flower water (*Pharmaceutical Journal*).

TUTU.

The "tutu" plant (pronounced "toot") is indigenous to New Zealand; its botanical name is Coriariæ ruscifoliæ. Tutu is a poison under certain conditions and for certain animals. The horse and pig are said to resist its poisonous action. Springtime appears to be the period of its greatest activity; when the succulent shoots thrown up from the spreading roots are ingested on a full stomach the effects are greatly modified. Mr. Hustwick, from whose account in the *Pharmaceutical Journal* we have abstracted this information, says that the system may become accustomed to the poison taken gradually. The chief effects of the plant is on the nervous system; the animal eating it appears to have the "staggers," becomes lethargic, but is liable to fits of frenzy, the occurrence of which may be due to slight provocation. These violent attacks of madness seem to recur at rapidly decreasing intervals, until the animal at last succumbs from sheer exhaustion. Phlebotomy performed on the jugular vein has been vaunted as a cure for these symptoms, but apparently on insufficient grounds. The effect of the green herb on man is not known, but the "berries" when ripe are said to be grateful and refreshing to the thirsty, though care must be taken to reject the seeds. Small birds enjoy the ripe fruit without inconvenience. Goats may eat the plant with impunity. Ruminants are, for the most part, however, seriously affected by it.

KAIRIN.

The physiological effects of kairin have received further study at the hands of M. Morohewetz, agrégé in physiology at the Faculty of Moscow. It appears from these investigations that the alkaloid kairin does not spend its activity in lowering the temperature. Kairin was used in a 6 per cent. (*sic*) solution of chloride of sodium, in order to prevent the action of the distilled water on the red blood discs. The blood remained alkaline, but its colour changed, and the more rapidly the greater the degree of concentration of the solution employed. A continuous current of air deprived of its carbonic acid did not restore the red colour of arterial blood. The blood spectrum indicated the presence of methæmoglobin by the appearance of four bands between the C and F of Frauenhofer's lines; these bands were more evident in proportion to the strength of the kairin in the solution. The red blood globules become dome-shaped under the influence of kairin; their colour is changed to that of a brownish tint and is paler according to the degree of concentration of the alkaloid. The number of red discs is not diminished. The blood of dogs which have ingested kairin coagulates almost instantaneously after escaping from the bloodvessels. The

change in the colour of the blood is seen in the living animal as a cyanosis of leaden tint, and this is said to have been witnessed in man by M. Golouboff as the result of the administration of .70 centigramme of kairin. The salivary and bilious secretions are made more abundant by the injection of the alkaloid under the skin or into the duodenum, the bile becoming black and viscous. A reddish-yellow ring, situate between fuming nitric acid and urine, is the test for the presence of kairin in the renal secretions. An elevation, followed by a depression, of the blood pressure in the carotid arteries and intense dyspnœa have been observed to follow the administration of large doses of kairin. In the dog 1·80 grammes of kairin is said to paralyse the heart first, respiration proceeding and taking on the character of Cheyne-Stokes breathing. At the autopsy the cavities of the heart are found to be dilated and full of blood. In the frog, kairin is said, like curare, to paralyse the terminations of the peripheral nerves. Newiadomsky has observed great prostration and cyanosis in a case of pneumonia after the administration of ·40 centigramme of kairin.

OSMIC ACID IN EPILEPSY.

The employment of osmic acid in epilepsy suggested itself to M. Wildermuth from the value of the drug in cases of neuralgia. At first the acid was used, but later an osmiate of potassium. The medicament was administered as pilules, each containing one milligramme of the active substance. The maximum daily dose employed was fifteen pilules, or fifteen milligrammes. Thirteen patients, the subjects of confirmed epilepsy, were under observation. The remedy was first combined with bromide of potassium, but this method was not followed by good results. Under the sole influence of the osmiate the number of attacks was steadily diminished, as compared with their frequency on expectant treatment. In only one instance, however, was complete immunity conferred.

AMYL NITRITE.

In the second number of the *Asclepiad* Dr. Richardson gives a formula for the administration of amyl nitrite by the mouth:—Amyl nitrite, pure, ℥xxxvi.; ethylic alcohol (sp. gr. 830), ʒvi.; pure glycerine to ʒiss. To make a mixture of twelve doses. One fluid drachm to be taken in a wineglassful of warm water. In asthma this method is specially recommended.

THE INTERNATIONAL HEALTH EXHIBITION.

THE FRENCH SECTION.

[SECOND NOTICE.]

HAVING dealt with water-supply and drainage in our previous article on the French section, warming and ventilation, with the construction of hospitals, barracks, schools, &c., suggest themselves as bearing most directly on the preservation of health. In these departments the French have made more progress than in the matter of drainage. Indeed, so far as hospital construction is concerned, it is generally admitted that the Tollet pavilion is the best in Europe. Such was the opinion expressed by Dr. F. J. Mouat in his remarkable reports on hospital construction throughout Europe, published in these columns. For simplicity, cheapness, and thorough ventilation, the Gothic arch, which is the chief feature of the system, gives the best results. It would take too much space, however, to recapitulate all that has been said on this subject; but the attendants at the Exhibition have for distribution a capital little pamphlet containing the catalogue and explanations of the Tollet exhibits published in English, which gives very adequate information. Behind the dairies will be found a Tollet ambulance of the model which has just been definitely and officially adopted by the French Ministry of War for the army. This tent is upheld by the iron framework which, in permanent as in temporary structures, forms the main support of the Tollet pavilions. No pickets are necessary, and on being exposed to the most violent winds on the coasts of Tunis these tents withstood the pressure when all the ordinary tents were blown down. There are some sixty models and drawings at the Exhibition of the Tollet system in all its applications.

Equally prominent in the French section are the drawings, models, &c., of Messrs. Geneste and Herscher's systems of heating, ventilating, &c. They have also issued, in English and French, a bulky volume explaining their exhibits. To them is due the ventilation of the Hôtel de Ville and the principal primary schools of Paris, the law courts, and the Monnaie Theatre of Brussels, the Grand Theatre of Geneva, the Ferrari Asylum at Clamart, the prison at Nanterre, and a great number of other important buildings. This firm has brought out a mechanical ventilator which is used at the Anzin coal mines and at the Hôtel de Ville. Formerly large ventilators only yielded 50 to 70 per cent. as as compared to the motive power employed. Messrs. Geneste and Herscher's ventilator gives 83 per cent., whilst its moderate dimensions permit of its being introduced in small passages and other inconvenient places, which is of the utmost importance in preserving the health of mining communities. With a dynamomotor a small mechanical ventilator is introduced at different points of public buildings and pumps forward the required air supply. Models of schools show how they are warmed in such a manner as to ensure ventilation and secure the utmost economy. The theory and practice here involved are complicated, but the result compares very favourably with what has been done in England; draughts are avoided, the cooling influence of the window counteracted, and the warmth is equally diffused throughout the room. There are also some interesting drawings showing how the workmen engaged at Messrs. Christolphe's silver-plating works are protected from the nitrous fumes. A lip overhangs the rim of the cauldron, and the suction produced underneath draws away the dangerous vapours. For steel works also there is a system of drawing off the small particles that otherwise would prove so dangerous to the workmen. In all these matters Messrs. Geneste and Herscher have displayed great enterprise and much scientific and engineering knowledge.

With respect to education, we are glad to note how the natural sciences are taught in the primary and secondary schools, both girls and boys being made to draw and describe all the principal organs of the human body, also various animals and subjects illustrative of elementary physics. By the adoption, now very general throughout France, of unilateral light, initiated and so ably advocated by M. Emile Trélat, the French are certainly in advance of England on this important question. While in English schools rays of light of different intensity coming from different directions cross each other, and confuse and fatigue the sight of the students, the light in a French school comes in one steady stream from large windows on the left hand side of the class. Excellent drawings illustrate this principle, and show it is only after class hours that the windows on the other side of the room may be opened, and this solely for the purposes of purification. The numerous plans of schools indicate a preference for pavilions or detached buildings, and the ample provision for drilling and gymnastics is highly commendable. The school furniture, though good, does not offer any special advantage over what is shown in other parts of the Exhibition, and we should like to see better provision made for the varying stature and growth of the pupils.

Among the miscellaneous exhibits within the Court, the appliances for blowing glass with compressed air will be welcome to all who know the injury done to the workmen engaged in glass-blowing. Not only is the strain upon the lungs most exhausting, but, by passing the blowing tube from one man to another, diseases, especially syphilis, are often communicated. Now, however, Messrs. Appert Brothers have put an end to these risks; and not only do they preserve the health of their workmen, but, as with compressed air they can bring much greater power to bear, they are able to exhibit a huge globe out of which 5000 watch-glasses can be cut. Just opposite this exhibit will be found Papier's ventilating cowls, which by imparting a rotary motion to the air that enters them are supposed to acquire over an ordinary chimney or pipe some of the superiority of the rifle over a smooth-bore. The theory is interesting, but we do not exactly understand what it has to do with the French Court, as the firm is established in England, and the list given of the places where the ventilator is applied are all in England.

Leaving the centre of the Court and going outside of the surrounding wall, exhibits of a less serious but of a more popular description will be found. For instance, there are the celebrated French soups of the Société Générale des Potages Economiques de Paris. These we analysed on a former occasion,

and found most nutritive, in spite of their wonderful cheapness. They present a great variety of flavours, need only to be boiled for a few minutes to be ready for consumption, and at an outlay of less than twopence per head. We get the clearness of the French soup and the peculiar familiar flavour so often missed in English soups. Close at hand the exhibits of M. Martin Brey of Paris are of some interest, as showing that macaroni, vermicelli, &c., can be made in the north. Formerly Lyons and Italy had the monopoly of this trade; for a powerful sun was required to dry the paste, so that it can be preserved indefinitely, as the smallest proportion of water may determine decomposition. M. Brey now, however, employs a stove specially contrived for drying paste, and he is therefore quite independent of the sunshine. It is said that 1,000,000 kilos of Italian macaroni and other pastes are manufactured annually in Paris. Among the familiar French beverages exhibited we recognised the Grande Champagne liquor of Barabeaux père et fils, and Get's peppermint. The latter is a mixture of syrup, alcohol, and peppermint, and forms, when diluted with water, a wholesome refreshing summer drink. Gellé Frères give us some French perfumery which has a special elegance that can only be described as truly Parisian. In their bearing upon health, the soaps, &c., base their hygienic virtues on the liberal admixture of glycerine; but, apart from this advantage, French perfumery has always been an attractive luxury. The café hygienic of Messrs. Marshall and Co., of Lyons and Paris, is peculiar. It tastes like ordinary coffee, it is the price of ordinary coffee, but is made of mocha and torrified acorns of the South European species. It therefore professes to be a food and a stimulant that will not cause sleeplessness. The preparations of chestnut flour of the same firm are very useful as helping to bring into general use a plentiful and excellent article of diet. The well-known chocolate Lombart also possesses similar merits. A large painting on the wall shows the vast underground passages that pass beneath this celebrated chocolate manufactory. The air is drawn down into these passages from a chimney that rises above the impurities on the surface of the ground, it is moistened, cooled underground, and then delivered into large cases in the factory above at exactly the same temperature in every season. These cases, thus cooled, receive the warm chocolate in moulds, and harden it in its right shape. Nearly as pleasant as these bonbons, Dr. Laféron's liqueur will be found a most enticing preparation of iron and quinine. It is an after-dinner liqueur, in which bitter oranges, myrrh, colombo, quinine, and iron are associated without injuring the palatable effect of the beverage. Dr. Laféron is a well-known practising physician in Paris.

In conclusion, the French may be warmly commended for the success of their section, though it was prepared under great difficulties. The invitation, lost in the pigeon-holes of the French Ministry, was only made known after the time for application for space was already terminated. On the other hand, the Government could only contribute £120 towards the expenses. In spite of these discouraging circumstances, and by private initiative, each exhibitor subscribing to the expenses, the money was found, and a very complete exhibition organised. The chief French commissioner, Dr. A. J. Martin, with great skill and energy secured the support of those friends of sanitary reform whom he knew most capable of entering into the spirit of such an exhibition. The love of science and of country aiding, the desired end was attained. The section was opened a month late, but, under the circumstances, this could not be avoided. The decorations and installations were all arranged with much taste by Messrs. Joubert and Sons, who also fitted up a small renaissance saloon for the French commissioners, and, by their knowledge of English and French, contributed materially to success in carrying out the scheme which at the eleventh hour had been so hastily yet well prepared.

ESSEX AND HERTS BENEVOLENT MEDICAL SOCIETY.

The ninety-eighth annual general court of audit of this Society was held at Hertford on the 15th ult., when petitions for relief were received from eleven widows and two medical men, and grants amounting to £433 were made. The Society has up to the present time received in subscriptions over £25,000, and has granted for relief over £30,000; the funded stock now amounts to £9600, and it is hoped that £10,000 may be invested before the centenary of the Society.

THE CHOLERA.

THE hope we ventured to express last week as to the diminution of the cholera epidemic at Marseilles and Toulon has so far been realised that, with the advent of the mistral and the diminution of temperature, the daily number of fresh attacks has been reduced to about half that which obtained about a fortnight ago. But, notwithstanding this, the disease is steadily extending its area; some twelve or more towns and villages in Provence and the south have become attacked; and in a few places, as at Arles and Aix, the onset of the disease has been of considerable virulence. The infection has also travelled into Italy, but so little confidence is reposed in the public by those who are there in authority that it is extremely difficult to judge whether the disease is being kept within the bounds of the localities first infected, or whether it is diffusing itself. Whatever be the future course of the disease, this is certainly not the time in which to relax any of the sanitary measures which have for their object the removal of all filth conditions which favour the retention and diffusion of the cholera poison. Even Marseilles and Toulon will be by no means out of danger, even if the number of fresh attacks goes on progressively diminishing, for where cholera has found the material favourable to its vitality it has not failed to show itself even in the depth of a Russian winter, and places that are attacked this year will certainly be liable to a renewal of the epidemic next autumn if they do not efficiently rid themselves of all sources by which excremental contamination of air and water may be brought about. In the midst of such conditions the poison will hardly fail to lie dormant; if they are removed, the poison will doubtless be at the same time got rid of. So far all rumours as to the actual importation of cholera into this country have turned out to be without foundation, although the sanitary defences at two or three of our ports have been put to the test. On rigid inspection and immediate isolation primarily in our port sanitary districts, and on measures of sanitation and isolation in all the sanitary areas of the country, the advisers of our Government have decided to rely; and we are glad to observe that with the aid of their own staff, and by the help of additional skilled physicians who have acquaintance with cholera and with the measures of prevention with which the disease must be met, the Local Government Board have commenced a special inspection of the sanitary arrangements which are in force at our principal ports. The influence of visits thus paid by officers from the central authority can only be useful, and in many districts they will be helpful in the extreme in enabling authorities who are hesitating as to the measures they should adopt to arrive at a right decision. In the meantime, all needed sanitary work should be pressed forward, and an attitude of watchfulness maintained.

Dr. Marckowitz, the Bucharest physician who has gone to study the cholera in the south of France, takes a more hopeful view of the situation than his Berlin *confrère*, Dr. Koch, who predicted that the epidemic would extend its ravages all over Europe, and is inclined to believe that it will die out where it originated. M. Claretie, in a recent *chronique* in the *Temps*, mentions a rather sensational case of recovery from cholera during one of the earlier visits of the epidemic, due to the skill of Dr. Lorain, a well-known physician of the time. The patient had sunk into the last stage of collapse, and the hospital physicians had stopped the treatment as useless. Dr. Lorain, happening to enter the ward, determined after a hasty examination of the sufferer to try an experiment with the object of restoring the circulation, which had practically ceased. He first performed the operation he contemplated on a rabbit, into whose crural vein he injected a certain quantity of warm water. He then repeated it on the dying man, into whose circulatory system he pumped 400 grammes—nearly a pint—of the same fluid. The heart began to beat at once, though so faintly as to be hardly perceptible. The operation was repeated with still happier effects. The pulse could now be felt at the wrist; the patient recovered sensibility and voice. In ten days he left the hospital perfectly well. As M. Claretie remarks, the case, which is a well-authenticated one, illustrates the soundness of Dr. Koch's advice, never to despair

of a cholera patient, and to keep up the treatment to the very last. The health of Paris continues to be satisfactory. Lloyd's agent at Lisbon states that the Portuguese Official Gazette of the 26th ult. contained a sanitary bulletin declaring the port of Huelva infected with cholera, and considered as suspected the ports between Cadiz and Ayamonte, both inclusive. The Paris delegates have visited Marseilles and Toulon. M. Clemenceau, who is a medical man as well as a deputy, speaking on sanitary measures at a meeting of the municipal council of the former city, proposed a central committee of medical men, and expressed himself in favour of the hospital being transferred to the outside of the town. There are now in Paris some 14,000 fewer visitors than were present at this time last year. It is stated that twenty cases of cholera have occurred at St. Petersburg, and that the disease has appeared at Charkoff and other towns. They have, however, been on the whole of a mild character, and the patients have recovered.

THE SUSPECTED CASE OF CHOLERA AT LIVERPOOL.

On the 25th ult., one of the crew of the *St. Dunstan* steamer was seized with severe cramp in the limbs and stomach followed by vomiting. This happened while he was transacting business in the city. He was taken home in a conveyance, and Dr. Welsh of the South Dispensary visited him at once. As the case appeared to be of a serious character, and as the patient had come from a vessel on board which two men had recently died with all the symptoms of cholera, Dr. Welsh very properly sought further advice and assistance. Dr. Lindsay and Mr. Hutchinson attended, and under their treatment the patient soon recovered. Dr. Taylor, the medical officer of health, also visited the patient. It is very satisfactory to note that the thorough disinfection of the vessel with the other precautions adopted, as mentioned in last week's LANCET, has proved successful, no other case having occurred. It ought to be mentioned that the sanitary authorities were enabled to do more in this case than the Health Act authorised, the owners having placed the vessel entirely at their disposal.

THE PICTORIAL PRESS AND CHOLERA.

The *Graphic* published last week some humorous sketches of the manner in which our continental neighbours put into practice the sanitary cordon and the fumigation of passengers. The dipping of a dog, which had, by mistake of course, violated the regulations by crossing the cordon, into a bucket of vinegar by way of disinfection is as amusing and grotesque as the bargaining by bribery for getting poultry across the cordon, with policemen watching complacently over this little transaction, and the fumigation of the persons of passengers—the former being carried out by the Spanish authorities at Gibraltar and the latter by the French at Avignon. In another page we notice a "cholera fumigating box," by which it would seem that still more stringent precautions are adopted at Geneva. "The suspected person," says the *Graphic*, "is placed in a box, which is about 6 ft. high, and in which he stands upright, with only his head outside, a towel being wrapped round the neck. The process occupies from three to four minutes, and the disinfectants used are chloride of lime and carbolic acid. The top piece of the box is made to slide in, and is removed when the process is completed by simply pulling outwards. While the sliding-board is being removed the towel comes in handily as a respirator."

CHOLERA PRECAUTIONS AT LEITH.

A propos of our remarks last week, we now learn that the sanitary authorities at Leith have received a communication from the Board of Trade informing them that a vessel had sailed from Marseilles with a cargo of old rags, and instructing them to be on the alert in case it should go to Leith. We trust that effective measures will forthwith be adopted in view of preventing at this juncture the importation of old rags and such-like media for conveying the cholera virus, especially when they happen to come from infected places.

Charles George Guy Perceval, Esq., H.B.M.'s Consul at Marseilles, has, we are informed, consented to receive contributions &c. towards relieving the distress among the labouring poor of the town induced by the epidemic now prevailing there.

The master of the steamship *Bracadile*, bound from Calcutta to Demerara, with nearly seven hundred souls on board, on the arrival of the vessel in Table Bay on the 4th ult., reported that cholera had broken out during the voyage, and that eighteen fatal cases had occurred.

The National Health Society has prepared for circulation a leaflet containing a variety of plain instructions for the prevention of cholera, and mentioning the precautions which it is desirable to take in the event of the appearance of an actual case of the disease.

THE FORTHCOMING OTOLOGICAL CONGRES AT BALE.

THE programme of this Congress, the third of its kind, which is to be held at Bâle from September 1st to 4th, has been published. The opening meeting will commence on September 1st at 10 A.M., when the election of officers will be held and addresses delivered by Dr. Sapolini, the President of the last Otological Congress, by Professor Burckhardtmerian, the President of the Organisation Committee, and by the members delegated from the Haut Conseil Fédéral and the Conseil d'Etat du Canton de Bâle-Ville. At 12.30 P.M. a breakfast will be given by the Swiss aural surgeons at the Veltlinerhette, and from 3 to 6 P.M. a meeting of the Congress will be held. On September 2nd, 3rd, and 4th meetings will be held from 9 A.M. to 12, and from 3 to 6 P.M., and on the 3rd the members will in the evening be entertained at a dinner given by the Conseil d'Etat of the Canton de Bâle-Ville. For September 5th an excursion to the lake of the four cantons is projected. The official languages are French, German, English, and Italian. The subscription is fixed at 20 francs, and tickets of membership may be obtained on application to Dr. Courvoisin, Bâle. In the list of communications promised, which number thirty-eight, we notice the names of but two residents in the United Kingdom—Mr. Bendelack Hewetson, who will read a paper on the Immediate Relief from Earache by the Injection against the Membrana Tympani of Glycerinum Acidi Carbolici, and its Power in arresting the Progress of Inflammation in the Middle Ear, of which the Earache is a symptom, and deliver some remarks on the Treatment of Catarrhal Deafness by the daily Injection of a strong Solution of Sodæ Bicarbonas into the Nares by the patients; and Dr. Thomas Barr, who has promised a paper on Adenoid Vegetations of the Naso-pharyngeal Cavity.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Barton, Winton, Eccles, and Monton (Urban). — The urban sanitary district bearing this composite name, which is approximate to Manchester and Salford, had in 1881 an enumerated population of 21,786. The medical officer of health, Dr. Carrington, has recently issued an interesting report for the two years 1882 and 1883, in which he has good reason for congratulating the sanitary authority and himself upon the evidence of improving sanitary condition that the recent mortality statistics for the district afford. The death-rate in the district which averaged 23·0 per 1000 in the four years 1873–76, fell to 18·3 in the four years 1880–83. In 1883 the death-rate was only 16·2, and Dr. Carrington estimates that 161 persons were alive in his district at the end of the year, whose deaths would have been recorded had the death-rate that prevailed ten years ago been maintained. We should have liked to see mentioned in the report the method adopted for estimating the population of the district, for whereas it appears to be admitted that the population declined from 1878 to 1881, it is now assumed to be increasing again, notwithstanding the decrease in the number of recorded births. The statistics given suggest the probability that the present population is somewhat over-estimated. Although so much undoubted improvement in the sanitary condition of the district has evidently taken place in recent years, the zymotic death-rate, reduced though it is, shows that the mortality is susceptible of further reduction; indeed

Dr. Carrington admits that "there are plenty of insanitary cottages in our midst." The proportion of child mortality is still exceedingly high, although the report does not give the means for measuring it satisfactorily, by showing the proportion of deaths of children under five years to those living at those ages. This is a test of sanitary condition which should always find a place in health reports. The inspector's report shows that a vast amount of useful work has recently been done, and no one need hesitate to refer to this work, and the reduction of the death-rate, as cause and effect. The result should encourage further effort in the same direction.

Stratford-on-Avon Combination.—Mr. Fosbroke, who has now held office in the Stratford-on-Avon combined district for over ten years, reports an annual mortality at the rate of 15·2 per 1000 inhabitants, and a birth-rate of 32·1. The sanatorium at Alcester has, as during former years, been of considerable service, and at Bidport an outbreak of German measles was stamped out by its aid. Scarlet fever appeared in ten different localities, but nowhere did it assume extended proportions. Thirteen cases came to Mr. Fosbroke's knowledge where speedy removal to the sanatorium prevented any extension of the disease, even to other members of the infected houses; a result which must, doubtless, be attributed in part to the system of voluntary notification of infectious diseases which has been organised in this district. Diphtheria was prevalent, although but little fatal, in this district, and Mr. Fosbroke inclines strongly to the opinion that ordinary sore-throat may by progressive development eventually produce the characteristic disease. Together with the medical officer to the Alcester Workhouse, Mr. Fosbroke investigated an outbreak of seventeen cases of diarrhœa in that establishment, and, after taking voluminous evidence, they came to the conclusion that the illness had been brought about by the consumption of soup cooked in a dirty copper furnace. The fact that the outbreak subsided immediately this culinary vessel was cleaned confirms the view expressed. The excellent sanitary work which has been organised in this combined district continues steadily in progress. The Evesham urban and rural districts are about jointly to erect a hospital for infectious diseases, new bye-laws have been framed by the Stratford and Evesham urban authorities, and the Alcester Board have delegated a similar work to a committee of their own members.

Jarrow (Urban).—The population of this district is calculated at some 28,000, and the death-rate was as high as 23·4 per 1000, whereas for the triennial period 1881–83 the mean was 21·4. Even this, however, exceeds last year's average death-rate of 20·4 in the fifty large towns of England. To some extent the excess is regarded by Dr. Munro as due to considerable fluctuations in population following on variations in the shipbuilding industry, and he is able to point to some diminution in the infantile death-rate. On the other hand, the zymotic death-rate reached 5·1 per 1000. Measles caused 82 deaths, small-pox 6, fever 8, and diarrhœa 28. The former disease is not one which requires notification under the Jarrow Improvement Act. This is unfortunate, because, although it is not often that much can be done to stay its spread by isolation, disinfection, and improved sanitary measures, yet much can be done in that direction in connexion with the closing of schools and the exclusion of scholars from infected houses. Out of 434 cases of infectious disease which were notified, and which happened to include many cases of measles, the only cases admitted into the infectious hospital were 25 small-pox and 1 typhus; thus affording another instance of the comparative failure of these temporary buildings. Not one out of 143 scarlet fever cases which came under notice was thus isolated. Short of isolation, considerable efforts are made by Dr. Munro's staff to control the spread of infectious diseases, and special pains are taken to see that the sanitary state of the schools, which form such fertile centres of infection, is maintained at a proper standard.

Lytham (Urban).—Excluding deaths occurring amongst casual visitors, the death-rate for 1883 reached only 12 per 1000, and two deaths were registered from zymotic causes. The general death-rate has also undergone a steady annual diminution, and Dr. Fisher maintains, with justice, that Lytham has a claim to be regarded as a salubrious health resort. The list of actual sanitary works carried out shows that a genuine effort is made to ensure the result attained.

Scarborough (Urban).—In the borough of Scarborough the death-rate in a population of 32,150 was 18·8 per 1000, and the zymotic rate 1·3. Scarlet fever was somewhat prevalent during 1883, six deaths from this cause having taken place during both the second and the third quarters. Scarborough is especially liable to receive infection from without, and the corporation have hence provided themselves with an infectious hospital, a fever ambulance, and one of the best-known disinfecting stoves. We fear, however, that the hospital is but rarely used, and it certainly is not such a one as should be possessed by a health resort like Scarborough, where visitors needing isolation demand a superior class of accommodation. Care is evidently bestowed by Dr. Taylor on all the sanitary details of the town, and the best efforts are made by him to maintain the healthiness of the borough.

Bedford (Rural).—This is an extensive district, having a scattered population of some 23,000. The death-rate, 19 per 1000, must be regarded as high. Diphtheria has for some years past maintained a steady hold on this and some neighbouring districts, and Dr. Prior, who has given very careful attention to its mode of origin and distribution, is inclined to fear that it is getting established in the locality. During 1883 the deaths were scattered over various parts of the district, no severe outbreak in any one place having occurred. In this report Dr. Prior calls attention to the sad lack of space about houses in some of the villages, and to the resulting courts and yards which resemble those of our large towns. It is often held that bye-laws needed in towns are not applicable to villages, but their adoption is the only way to prevent occurrences such as these. The same remark applies to the erection of privies which must necessarily cause nuisance, but which, without bye-laws, cannot be controlled until the end which should be avoided has already been brought about.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5659 births and 4176 deaths were registered during the week ending the 26th ult. The annual death-rate in these towns, which had steadily increased in the five preceding weeks from 18·7 to 24·0, further rose last week to 24·9, a higher rate than has prevailed in any week since April, 1883. During the first four weeks of the current quarter the death-rate in these towns averaged 22·7 per 1000, against 23·2, 19·1, and 20·7 in the corresponding periods of 1881, 1882, and 1883. The lowest rates in these towns last week were 11·1 in Brighton, 13·3 in Portsmouth, and 13·8 in Birkenhead. The rates in the other towns ranged upwards to 29·6 in Cardiff, 29·7 in Bolton, 31·9 in Liverpool, and 33·8 in Leicester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 572, 876, and 1257 in the three previous weeks, were 1246 last week; these included 881 from diarrhœa, 118 from whooping-cough, 86 from measles, 77 from scarlet fever, 33 from "fever" (principally enteric), 30 from diphtheria, and 21 from small-pox. These diseases caused the lowest death-rates last week in Hudderafield and Birkenhead, and the highest rates in Nottingham, Preston, and Leicester. The greatest mortality from diarrhœa, mainly infantile, was recorded last week in Norwich, Leeds, Nottingham, Preston, and Leicester; from measles in Liverpool and Bolton; from whooping-cough in Sunderland and Liverpool; from scarlet fever in Cardiff and Sheffield; and from "fever" in Plymouth. The 30 deaths from diphtheria in the twenty-eight towns included 20 in London. Small-pox caused 23 deaths in Greater London (exclusive of 17 metropolitan cases registered outside Registration London), 1 in Liverpool, 1 in Sheffield, 1 in Hull, and 1 in Sunderland. The number of small-pox patients in the metropolitan asylums hospitals situated in and around London, which had been 1368, 1241, and 1152 on the three preceding Saturdays, had further declined to 1011 at the end of last week; the number of new cases admitted to these hospitals also declined to 105 last week, from 266, 179, and 141 in the three preceding weeks. The Highgate Small-pox Hospital contained 56 patients on Saturday last, 6 new cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 231, 206, and 177 in the three previous weeks, further declined to 159 last week, and were 26 below the corrected average. The causes of 63, or only 1·5 per cent., of the deaths in the twenty-eight towns last week were not

certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Brighton, Sunderland, and in six other smaller towns. The largest proportions of uncertified deaths were registered in Oldham, Blackburn, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 21·0 and 22·8 per 1000 in the two preceding weeks, further rose to 23·3 in the week ending the 26th ult.; it was, however, 1·6 below the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 16·8 and 18·3 in Perth and Edinburgh, to 24·0 in Paisley and 28·6 in Glasgow. The 563 deaths in the eight towns included 43 which were referred to diarrhœal diseases, 22 to whooping-cough, 6 to measles, 6 to scarlet fever, 5 to diphtheria, 3 to "fever," and not one to small-pox; in all 85 deaths resulted from these principal zymotic diseases, against 87 and 116 in the two preceding weeks. These 85 deaths were equal to an annual rate of 3·5 per 1000, which was 3·9 below the mean rate from the same diseases in the twenty-eight English towns. The deaths attributed to diarrhœal diseases, which had been 13, 32, and 57 in the three previous weeks, were 43 last week, and exceeded the number in the corresponding week of last year by 19; the 43 last week included 25 in Glasgow, 5 in Edinburgh, 5 in Dundee, and 4 in Greenock. The rate of mortality from diarrhœa last week was almost three times as great in the English as in the Scotch towns. The 22 fatal cases of whooping-cough in the Scotch towns showed a decline of 4 from the number in the previous week; they included 15 in Glasgow and 4 in Leith. Of the 6 deaths from measles, 2 occurred in Glasgow and 2 in Dundee. Five of the 6 deaths from scarlet fever and 3 of the 5 from diphtheria were returned in Glasgow; the fatal cases of diphtheria showed a considerable decline from recent weekly numbers. The 3 deaths referred to "fever" included 2 in Paisley and 1 in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been but 54 and 66 in the two preceding weeks, further rose to 89 last week, and exceeded by 24 the number returned in the corresponding week of last year. The causes of 69, or more than 12 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 22·3 and 21·9 per 1000 in the two preceding weeks, further declined to 19·3 in the week ending the 26th ult. During the first four weeks of the current quarter the death-rate in the city averaged 21·1 per 1000, the rate during the same period being equal to 23·9 in London and 17·7 in Edinburgh. The 130 deaths in Dublin showed a further decline of 17 from the numbers returned in recent weeks, and included 16 which were referred to the principal zymotic diseases, against 13 and 24 in the two preceding weeks; 5 resulted from scarlet fever, 4 from diarrhœa, 3 from "fever" (typhus, enteric, or simple), 3 from whooping-cough, 1 from diphtheria, and not one either from small-pox or measles. These 16 deaths were equal to an annual rate of 2·4 per 1000, the rate from the same diseases being 8·3 in London and only 1·7 in Edinburgh. The 5 fatal cases of scarlet fever corresponded with the number in the previous week, while the deaths referred to diarrhœa, "fever," and whooping-cough showed a decline from the respective numbers in the previous week. Four inquest cases and 4 deaths from violence were registered in the city last week; and 30 deaths were recorded in public institutions. The deaths both of infants and of elderly persons exceeded those returned in the previous week. The causes of 20, or more than 15 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

ARTILLERY VOLUNTEERS.—4th Lancashire: Edwin Hyla Greves, Gent., M.B., to be Acting Surgeon.—2nd East Riding: Acting Surgeon George Wilkinson Pyburn resigns his appointment.—1st Volunteer Battalion, the Leicestershire Regiment: Acting Surgeon Clement Frederick Bryan to be Surgeon.

ADMIRALTY.—The following appointment has been made:—Surgeon Charles William Magrave to the *Penelope*.

Correspondence.

"Audi alteram partem."

SIR LYON PLAYFAIR'S ESTIMATE OF "THE WASTE OF THE PROFESSION."

To the Editor of THE LANCET.

SIR,—You ask me how I arrive at the large figure of 1600 as representing the annual demand for licences in the medical profession, or, as I put it, to supply the waste. The word "waste" was perhaps inappropriate, and a few lines further in my speech I used the word "requirements." But my meaning was obvious enough when I said that "the doors of admission to a licence must be wide enough to let 1600 men at least pass through them." If you refer to the minutes of the General Medical Council of March 25th, 1884, you will find that all the licences of corporations and universities amounted to 2163. But a considerable number of these are duplicate entries, on account of men taking more than one licence. I consulted a competent authority, and was informed that 500 would more than correct these double entries. To be on the safe side I deducted 563, and so arrived at, in round numbers, 1600. In your article you show that while the deaths in 1883 were 530, the number of new registries was 1304. As many licentiates go to the colonies and foreign countries, I do not think 1600 very wide of the mark as indicating the number of individual men annually licensed to practise in the medical profession.

I am, Sir, yours, &c.,

London, July 30th, 1884. LYON PLAYFAIR.

*** Sir Lyon Playfair fails entirely to justify his estimate of the waste of the profession, or his attempt to frighten the House of Commons into believing that there was a danger of the supply of medical men falling short of the demand. It is the business of the Medical Registrar to ascertain the deaths of all registered medical men, and, with all his pains, he can only make out an annual death-rate of—taking the last three years—526. Sir Lyon has told the House of Commons that the waste of the profession is 1600! The annual average number of *new registrations* for the last three years is 1176—that is, *more than twice the number of the deaths*. We must say again that the only thing which Sir Lyon Playfair can properly do with an error which has so grievously misled the House, and so misrepresented the case of the profession, is to make an equally public correction of it.—ED. L.

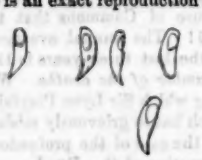
THE CHOLERA.

To the Editor of THE LANCET.

SIR,—A few days ago my friend, Dr. Wilks, charged me with having discovered Koch's cholera bacillus in 1866, and told me that I had given a brief description of it in the Ninth Report of the Medical Officer of the Privy Council. I disclaimed all knowledge of the fact. Last night, at a meeting of the College of Physicians, he repeated his statement to myself and several other Fellows. I still had to confess incredulity; but determined to look the matter up. This I have just done, with the following result.

In August, 1866, when cholera was raging at the East-end of London, Mr. Simon arranged that a series of investigations should be made into important questions connected with that disease; and he appointed Dr. Wilks, Dr. Martin, Dr. Hughlings Jackson, and myself, to report upon the degrees of success attained by different methods of treatment of cholera, especially as practised in the London hospitals; and Dr. Burdon Sanderson to undertake the verification of alleged experimental proof of the communicability of cholera. Owing to the rapid and almost sudden subsidence of the epidemic, and its limitation in area, the former of these inquiries died in its infancy. Dr. Burdon

Sanderson, however, as is well known, was able to repeat and verify Prof. Thiersch's experiments with respect to the communicability of cholera to mice. In the course of his report to the Privy Council, he says: "During the month of September I dissected about twenty mice affected with cholera, more or less severely. During the progress of the inquiry a certain number were forwarded to Dr. Bristowe, who had kindly consented to examine them, and has since furnished me with notes of his observations." And later on, after detailing his own microscopical results, he proceeds as follows: "I append here, by Dr. Bristowe's permission, the notes which have been forwarded to me by him, only observing that the above description"—that is, his own description which preceded mine—"was written before I had read them, and that our dissections were made independently. 'There was in every case a remarkable tendency to decomposition of the bowels. The small intestines generally contained a largish quantity of pale-yellowish fluid, mixed with bubbles of gas. The cæcum was more or less distended with fluid of a dusky reddish hue, and similar fluid was also found in greater or less quantity in the colon and rectum. From the anal orifice sometimes mucus and sometimes a little solid lump of fæces was extruded. The fluid in the ntestines always contained detached intestinal epithelium, and sometimes an immense quantity if it. The cells were mostly separated from one another, but were sometimes in groups as if they had come off in flakes either from the surface of the mucous membrane or from the interior of follicles. Such cells were met with even in the mucus exuding from the anus. There were also throughout the whole of the intestinal tract vast numbers of low vegetable organisms, some consisting of two joints and undergoing constant movement, others of several successive joints and either moving or stationary (bacteria, &c.).' Dr. Bristowe further refers to 'round or oval well-defined thick-walled cells, apparently parasitic,' which, he says, existed 'in greater or less number in the small intestine, but were always most numerous in the cæcum and large intestine.' He also observed '*numerous oval, slightly curved cells with a single nucleus*,' of the nature of which he is unable to form a decisive opinion." On perusing these forgotten statements of mine, and especially that which I have put in italics, circumstances related with them, but not recorded, came to my mind; and especially I recalled that I had made some sketches of the bodies whose nature I had not ventured to surmise, and on looking for them I found them in one of my note books. Here is an exact reproduction of them. I discovered no memorandum, however, of their actual size or of the magnifying power under which I examined them. But I was working at that time with Ross's highest powers, and was habitually employing lenses magnifying from 500 to 2000 diameters. Probably therefore I drew them as they appeared under a magnifying power of between 500 and 1200 diameters. The bodies clearly accord with my own description of them, and present also the comma-like form manifested by the bacilli which Koch has recently discovered in cholera stools. I think there can be no reasonable doubt that the bodies are in fact identical. Owing to the subsidence of cholera coincidentally with the performance of Dr. Sanderson's experiments, and its absence from England eversince, I never had any further opportunity of investigating the nature of the bodies I described, and none of determining whether or not they were also present in the choleraic evacuations of human cholera patients; and, consequently, although I was evidently interested in them at the time, the incident left no permanent impression on my mind. I need scarcely say that I do not write this letter with the object of putting forward any claim whatever to the discovery of the cholera bacillus. This discovery, assuming it to be one, belongs to Koch alone. But my forgotten investigations seem to me to have a little interest at the present time, inasmuch as they tend to show that Koch's cholera bacilli were found in connexion with the cholera of 1866, and that in Dr. Sanderson's experiments cholera, as was at the time contended, was actually imparted to mice. They show, too, how closely one may approach a discovery and yet fail to grasp it.



I am, Sir, yours faithfully,

Old Burlington-street, July 23rd, 1884. J. S. BRISTOWE.

To the Editor of THE LANCET.

SIR,—Perhaps at present a few simple facts concerning cholera may prove instructive. They came under my notice while serving in India, through two very virulent epidemic invasions—one at Delhi in June, 1861, another at Jullundhur in September, 1862, while surgeon to H.M.'s 82nd Regiment. Both outbreaks emanated from the enormous gatherings of religious pilgrims who periodically flock to the "holy city" of Benares, and, dispersing thence, carry back the *materies morbi* (indigenous to the place), leaving its footprints, march by march, along the various routes they retrace homewards. Thus it reached Delhi, where the 82nd Regiment was quartered after the Mutiny, not in barracks, but in native buildings extemporised for use in the city, and within the fort, both these being separately enclosed within lofty fortified walls; the latter inside the former. I need scarcely say the sanitary condition was indifferent. The men in the fort suffered more severely than those in the city around; but the band, some forty strong, which occupied the worst quarters of all—viz., an old zenana building, crowded and closely shut in from light and ventilation by high thick walls absorbing and radiating heat—had not a single case from first to last. The companies in the fort, the most severely attacked, were moved (in June) to tents on "the ridge," a belt of slightly elevated ground not more than half a mile from the city. The disease ceased at once; not another case occurred. Other companies were sent in detachments to the Kootuli and elsewhere; the change was also beneficial, and disease slowly abated. Three men occupied a small central room or compartment open on four sides in the Martiniere building. All three died in two days, the adjacent rooms being free; one man was taken from the room to the hospital, the two others on duty returned to the room and died next day. No special local cause was ascertainable. Delhi boils and Delhi flies were the whole time as pestilential as usual. At Jullundhur the barracks are separated by a road; on one side the disease was violent and fatal, on the other side absent. This epidemic was extremely virulent in type, though limited in extension, the regiment being at once broken up into detachments and kept moving every few days. It lasted from September 6th to the 21st; all, or nearly all, attacked died. Various methods of treatment were adopted: calomel, quinine, affusion, electricity, opiates, stimulants, counter-irritants, heat, &c.; all failed. Prognosis was mere guesswork. Some of the worst cases (inveterate drinkers) recovered when in articulo mortis; others more favourably circumstanced, especially among the women, proved fatal. My own opinion is, I am sorry to own, that in types of this virulence medical science has as yet no remedy whatever.

I am, Sir, your obedient servant,

H. D. FOWLER.

Bedford, July 29th, 1884. Deputy Surg.-Gen., A.M.D. (retired)

P.S.—How is the cholera bacillus(?) so suddenly annihilated and so definitely limited? Should not the use of rain water as much as possible be substituted for that in ordinary use during cholera times? No officers or members of their families suffered; they were quartered both in the fort and city of Delhi outside, and the same applies to Jullundhur.

To the Editor of THE LANCET.

SIR,—Now that the subject of Asiatic cholera is again upon the *tapis*, perhaps the synopsis of a hundred cases treated during the present outbreak at Marseilles may be of interest to you. I may premise that, taken as a whole, the present epidemic cannot compare in virulence with those which devasted various English towns in 1849. The percentage of those attacked and the mortality among them are both much less. Out of the total of 100 cases, 16 died; of the fatal cases, 3 died before there was time for symptoms of reaction to manifest themselves; 11 died of exhaustion produced by diarrhœa and vomiting, after an illness of varying duration, but under three days. Five died after an illness protracted beyond the three days, but

from the same cause—viz, asthenia produced by exhausting discharges; 2 died of consecutive fever. The cases coming under the first category ended fatally in from five to twelve hours. Their aspect was appalling to anyone not accustomed to such sights. The eyes were sunk in the back of the head like those of a corpse, but widely opened and staring; eyelids livid; skin of an ashen-grey colour, cold and clammy with moisture; the features were often so distorted as to be unrecognisable by the nearest relations; the pulse was imperceptible. The patient often shrieked aloud to the "bon Dieu" or to his or her favourite saint. The limbs were violently cramped and the whole aspect that of acute suffering and collapse. Those who survived this stage to succumb at a later period presented the usual symptoms, which have been sufficiently described in medical works. The only point to which I desire to draw attention is the greater proportion of cases which, though ultimately fatal, survived beyond the third day as compared with the percentage recorded in previous epidemics. This may be either due to the milder character of the virus or to the greater efficiency of the treatment. Only one death among medical attendants has come to my knowledge, that of a student, with whom I was well acquainted; so perhaps, after all, the Duc de Chartres in his recent act of heroism did not run any very great risk.—I am, Sir, yours truly,

ALFRED DRYSDALE, M.B. Lond.,
Officier de Santé.

Mentone, July, 1884.

THE WELDON CASE.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me to state that I am not the defendant in the recent trial, Weldon *v.* Semple, and that I know nothing of the case beyond what I have read in the newspapers.—I remain, Sir, yours very truly,

R. H. SEMPLE, M.D., F.R.C.P.I.

Torrington-square, July 31st, 1884.

THE SANITATION OF MARSEILLES HARBOURS.

To the Editor of THE LANCET.

SIR,—Your Liverpool correspondent, in commenting upon the cases of cholera on board the steamship *St. Dunstan* in the current issue of THE LANCET, says:—"It transpired that the vessel was put into a dock into which a portion of the sewage of Marseilles was discharged, and the men noticed, particularly at night, a strong and offensive effluvium." I have to observe that the same thing was noticed by myself and other passengers of the Peninsular and Oriental steamship *Cathay*, which entered the quarantine harbour at Marseilles on March 25th. Moreover, the water being quite still, large quantities of excreta could be seen floating about in the early morning, and the stench was abominable. We had to undergo the stupid, absurd, and odious *fiasco* of quarantine, which was enforced for twenty-four hours, while the *Cathay* and other vessels were exposed to the influence of the effluvium of sewage, which, it would appear, was pumped into the quarantine harbour for some occult purpose. We were boarded by officials; an *officier de santé* inspected the crew and officers, but not the passengers; and, during a long interview with the ship's surgeon, he put that gentleman through a searching *viva-voce* examination on the symptoms of cholera, and the differential diagnosis between it and dysentery. He caused the hatchways to be limewashed, and the w.c.'s of the native crew only to be nominally disinfected. From Paris I sent a report on the bad sanitary arrangements at Marseilles and the danger of cholera for publication in your columns, but it would seem that the manuscript did not reach its destination.

I am, Sir, yours, &c.,

JOHN C. LUCAS.

July 28th, 1884.

FOREIGN GRADUATES' ASSOCIATION.—Dr. W. C. Daniel, of Epsom, has been elected President for the ensuing year, vice Dr. H. J. Hardwicke, of Sheffield, who becomes a Vice-President. Dr. K. N. Macdonald, a former President, has been elected a Vice-President, and Dr. J. J. Bailey, of Marple, Hon. Secretary. The Council consists of twelve London and provincial foreign graduates.

NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

THE ROYAL VISIT TO NEWCASTLE.

HIS Royal Highness the Prince of Wales with the Princess and some of the Royal children are expected to arrive here on August 19th, and will at once proceed to Sir W. Armstrong's seat at Rothbury, where they will stay during their visit to Northumberland. The next day they will visit Newcastle to open the new building erected for the Natural History Museum and the Jesmond Park, presented to Newcastle by Sir W. Armstrong. The new reference department of our public library will also be opened, and the day's proceedings will conclude with a banquet given by the civic authorities to the Prince, which is expected to be a representative one, and worthy of the occasion. The next day the Prince will again visit the city, and, taking a view of the Tyne and the famous High Level Bridge, will proceed down the river to North Shields, and after opening the new dock there will go on to our "Northern Brighton," Tynemouth. Thence he will return to Rothbury, and possibly have a few days' grouse shooting in the vicinity, the place being surrounded by well-stocked moors. It has given much satisfaction that the Royal party is to be welcomed and received in our ancient town, but modern city, by a medical mayor (Mr. H. W. Newton).

ROTHBURY.

The Royal visit will bring this picturesque little mountain town into deserved prominence, so that a few words about it as a health resort may not be out of place here. Rothbury, the name of which signifies "the town in the clearing," is situated forty-one miles from Newcastle. The town has a population of rather over 5000, and has been known as a health resort for several generations. The beautiful valley of the Coquet, on which it is situated, extends from three to four miles, and is about two miles broad. The main street is about 250 feet above the sea-level, and the valley is shut in on all sides, except the west, by hills from 700 to 1400 feet in height; ample protection is thus given the town from all cold winds. Observation shows the rainfall to be moderate; but what is of far more consequence is the fact that this rainfall occurs on about 160 days, the remaining 205 being quite dry. Dr. J. Gordon Black, of Harrogate, who has given much attention to the climate of Rothbury, says that sufferers from spasmodic asthma or chronic bronchitis with asthma should carefully avoid the place, from its air being a too powerful and exciting a stimulant. In pure bronchitis, however, having a tendency to become chronic from passive congestion of mucous membrane, Rothbury is often curative by exciting a healthy circulation. For struma no better inland or rather mountain health resort could be selected. The drinking water is pure and soft, and, as Dr. Gordon Black observes, admirable as a means of solution of thickenings or coagulations of the lymphatic type. It may be mentioned that the Coquet is celebrated as the *beau idéal* of an angler's river; and that the trout streams are numerous and well stocked. The little town will supply all the wants of the visitor. Lodgings are good, and as yet the charges are moderate; but during the present season, which is an exceptional one owing to the Royal visit, visitors would do well to make arrangements as to quarters in advance.

Newcastle-on-Tyne, July 28th, 1884.

IRELAND.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE election for a Professor of Surgery in the Medical School of the College took place on the 24th ult., when, after an exciting contest, Mr. Edward Hamilton was successful. Of eighteen members of Council who recorded their votes, ten voted for Mr. Hamilton and eight for Mr. Corley. The result has been as I anticipated in these columns some time since—viz., the election of Mr. Hamilton by two or three votes. Either candidate was well qualified to succeed the late Dr. Stannus Hughes in the chair of Surgery. The election of Dr. Cameron to the Vice-Presidency necessarily

causes a vacancy for a member of Council, which will be filled up on Monday, the 4th inst. So far there are only two candidates before the electors—Mr. Corley (late Vice-President) and Mr. Nixon. At the recent examinations for the first half of the licence in Surgery, of seventy-four candidates who presented themselves only twenty-six satisfied the examiners.

PRECAUTIONS AGAINST CHOLERA IN BELFAST.

The committee appointed to make proper arrangements should cholera visit that town recently met to consider the report of Dr. Seaton Reid in reference to the staff and accommodation required at the intercepting hospital. They recommended that nurses and a medical staff should be engaged, and that an additional building be erected near the present intercepting hospital, to contain ten additional apartments. These suggestions came before the guardians last week, who agreed to the various recommendations made except as regarded the additional building, which was considered unnecessary. The guardians, however, have taken advantage of an offer made through the Local Government Board to utilise a number of police huts capable of accommodating five or six persons each.

SANITARY CONGRESS IN DUBLIN.

A Sanitary Congress and Exhibition will be held towards the end of September, under the auspices of the Sanitary Institute of Great Britain. Various papers will be read and discussed on matters relating to sanitary science. There will be three sections—viz., Sanitary Science and Preventive Medicine, presided over by the Registrar-General for Ireland; Engineering and Architecture; and, lastly, Chemistry, Meteorology, and Geology, of which the President will be Dr. Cameron, Vice-President of the Royal College of Surgeons. The special questions in the various sections include the housing of the poor, the disposal of town sewage, and the effects of water-supply and of site and climate on health. Dr. Cameron is expected to read a paper on the influence of good water supplies on health considered from a chemical and physiological point of view.

ROYAL UNIVERSITY OF IRELAND.

The Maternity Hospital, Glasgow, and the Maternity in connexion with the Royal Infirmary School of Medicine, Liverpool, have been placed on the list of institutions from which the University receives certificates for degrees in medicine.

It is proposed to hold a Hospital Saturday in Belfast, to benefit the funds of the Belfast Royal Hospital.

During the June quarter there were 31,549 births and 23,868 deaths registered in Ireland, the births and deaths being both below the average. Compared with those for the corresponding quarter of 1883, the returns of pauperism show a decrease of 2888 in the average number of workhouse inmates on Saturdays during the quarter, and a decrease of 3483 in the number of persons on out-door relief.

Dublin, July 29th, 1884.

PARIS.

(*From a Correspondent.*)

THE CHOLERA.

IN hinting last week that the diversity of opinions expressed by those who consider themselves authorities on the subject would not be without an injurious effect upon the public, I did not anticipate so speedy a confirmation of my words. In several instances those who have been seized with cholera have committed suicide upon feeling the first symptoms, rather than take their chances of treatment, and now a newspaper correspondent telegraphing from Marseilles on July 26th says, "A medical certificate bears the following statement: 'The patient refused to take the medicine prescribed, and, although the fact has only been officially noticed to-day, certain patients have refused for the last few days either to see a doctor or take medicines.'" And not without some reason. Every theorist must thrust his ill-digested views on the public through the medium of the daily papers, and so the newspapers are filled with the most contradictory statements, which cannot fail to destroy anything like confidence. One considers the alkalinity of the secretions the great thing to be got over, and would saturate the patient with acid to check the development of bacilli. Another considers these of so little importance that he would swallow any amount of them to prove it. I am not alluding to the opinions expressed in the medical press, where, of course, they are entirely in place, but to the letters with which the lay periodicals are crowded. Another enthusiast writes on the virtue of copper *intus et extra*, and others must do battle for and against astringents. The homœopaths, too, are claiming to be consulted. One of their adepts would have the choleraic patients handed over to them exclusively on the ground that, whereas the death-rate is only 20 per cent. in their hands, thrice that mortality results from allopathic treatment. If certain members of the medical profession are enjoying the satisfaction of seeing their lucubrations in print, the chemists and manufacturers of cholera specifics and quackeries are reaping more substantial advantages. The copper theory has been appropriated by an enterprising individual, who makes a kind of plaster, a certain surface of which is guaranteed to secure immunity from cholera during the next twenty-four hours; each day the application must be repeated, and the greatest benefit (to the vendor) of course results from the application. Another external appliance of occult power which has been largely advertised as a cure for every kind of pain, and, strange to say, at the same time as a remedy for locomotor ataxy and obesity, this last affection being radically cured in thirty days, is now asserted to stay the virulence of cholera. The advertisers ingeniously admit that it will not preserve from the disease, but its pain-allaying qualities of course render the malady less formidable. The specifics for internal use, both of home and foreign manufacture, are advertised in the most unwarrantable manner, too often owing much of their success to medical encouragement; and to give some idea of the extent to which ill-advised medical advice and pharmaceutical quackery is carried, it may be mentioned that on Monday last the secretaries of the Academy of Sciences received no less than *two hundred and forty* communications on the subject. M. Gosselin, speaking in the name of the Commission appointed to examine this correspondence, informed the Academy that there was nothing in it of any practical interest. Some of the writers had medicines with which they wished to experiment without allowing the composition to be known; others offered to sell their "secret" to the Government for various large sums. There were those who wanted to contract at so much per cent. either with the Government or with the patients. And, lastly, came experimenters claiming that wards should be reserved for them in the hospitals to try the various remedies they fancied; amongst these were olive oil, sulphur, petroleum, benzine, carbolic acid, baths of urine (!) and of wine, arsenic, copper, veratrin, pilocarpine, salicylic acid, inhalations of oxygen, &c. Surely there never was better proof of the advisability of suppressing quack medicines altogether. If any of these preparations are really useful in cholera their composition should be made known, and the profit derived from their sale reaped in a regular manner by the retailers; but at the present time the medical profession especially should set its face against this speculation in human life by inventors of secret medicines, and discourage every such speciality, however vaunted by the advertisers. The mortality from the epidemic during the last week in the principal centres has been as follows:—

Date.	Toulon.	Marseilles.	Arles.
July 22nd	42	57	8
,, 23rd	34	44	9
,, 24th	26	48	12
,, 25th	27	38	4
,, 26th	17	58	15
,, 27th	12	36	8
,, 28th	21	24	12

July 30th, 1884.

ROYAL VISIT TO ST. THOMAS'S HOSPITAL.—Her Imperial Highness the Crown Princess Victoria of Germany and suite visited St. Thomas's Hospital on Tuesday afternoon at very short notice, with a view to seeing the hospital in its every-day working state and under ordinary conditions. Her Imperial Highness visited several of the wards, the various details connected with the working and nursing arrangements being explained to her by the senior surgeon, Mr. Sydney Jones, Dr. Hadden (on behalf of the medical staff), and Mrs. Wardroper, the matron of the hospital. At the close of her visit the Crown Princess expressed her satisfaction with the arrangements of the institution.

ROYAL COLLEGE OF PHYSICIANS.

AT the ordinary Comitia, held on Thursday, the 31st ult., Sir W. Jenner, Bart., President, in the chair, the following gentlemen were elected censors for the ensuing year—Dr. J. W. Ogle, Dr. Wilson Fox, Dr. W. H. Stone, and Dr. J. E. Pollock. The examiners and other officers were also appointed.

The report of the Cholera Committee, embodying general instructions for the prevention and treatment of cholera, was received, and will be published after it has been sent to the Local Government Board.

Reports from the Library Committee, the Curators of the Museum, and the Finance Committee were read and adopted.

The Medical Bill having been withdrawn, a committee was formed to facilitate the adoption of the Scheme for a Conjunction of the College with the Royal College of Surgeons for examination purposes.

MEDICAL NOTES IN PARLIAMENT.

Smoke Abatement.

IN the House of Lords on Monday, Lord Derby presented a petition from the vestry of St. James's against the Smoke Abatement (Metropolis) Bill.

On Thursday, Lord Stratheden and Campbell moved the second reading of the Bill, and it was carried by 31 to 17, but on the understanding that at this period of the session the measure would not be enabled to pass into law.

The Canal Boats Act Amendment Bill and the Cholera Hospitals (Ireland) Bill passed through Committee.

Oleomargarine.

In the House of Commons, on Friday (25th ult.), Mr. Hibbert informed Mr. Duckham that the Local Government Board had no supervision over oleomargarine factories, and had no definite information as to the extent of the manufacture in the United Kingdom. They believed the provisions of the Food and Drugs Act were sufficient to meet the case of any deleterious compound, and a circular was sent to the sanitary authorities last month, urging increased activity in obtaining samples of food and drugs for analysis. If samples of oleomargarine were found to be injurious to health, and if that compound were sold when butter was asked for, prosecutions would follow, as they had in the case of butterine.

The Medical Bill.

In reply to Mr. Talbot, Mr. Gladstone expressed his regret at having to announce that in view of the convenience of members and the circumstances of the session, this Bill would not be further proceeded with this session. Subsequently, the order for going into committee was discharged, and the Bill was withdrawn. During the week, petitions in connexion with the Bill continued to be presented, mostly in favour of the proposed Pharmacopœia Committee.

Rags and Cholera.

Sir C. Dilke assured Sir F. Milner that a cargo of rags from Marseilles had not been landed. In reply to Mr. Cowen, the right hon. baronet said there was no evidence of the communication of cholera by rags, but small-pox and woolsorters' disease had been so conveyed.

The Carriage Tax.

Lord A. Percy moved a resolution in favour of the abolition of the carriage tax, and specially referred to medical men as requiring carriages for professional purposes. The Chancellor of the Exchequer contended that several other taxes had priority for remission, and the resolution was rejected by 93 to 38.

Broadmoor Lunatic Asylum.

In Committee of Supply, Mr. Hibbert informed Mr. Warton that the increase of 7 per cent. in the vote for this asylum was due to the fact that criminal lunatics were no longer sent to licensed houses.

Vaccination Questions.

Mr. Russell replied to Mr. Hopwood that the death of a recently vaccinated child, named Best, at Hull, was certified as due to erysipelas, and the doctor stated that the disease had no connexion with the vaccination. Other children vaccinated from the same lymph took no harm. The parents asked the Local Government Board for an inquiry, but at present no action had been taken.

On Tuesday, Mr. Russell stated to the same hon. gentleman that the Local Government Board did not propose to sanction the stipulation of the Dewsbury guardians, that a public vaccinator should guarantee children against injury. The present rules were sufficient to prevent any but the most minute risk, and a public vaccinator ought not to be called upon for more than due observance of these rules.

The State of the Thames.

On Monday, Sir W. Harcourt, in answer to Mr. Rogers, said the correspondence between the Home Office and the Metropolitan Board of Works on this subject would be ready for presentation next week.

Burgh Police and Health (Scotland) Bill.

A petition from the Forfarshire Medical Association was presented against the Bill.

On Tuesday, the rejection of the Bill was moved by Mr. Hopwood, who strongly complained of the arbitrary powers proposed to be given by it to local sanitary authorities. A long debate followed, and after a division the House went into committee on the Bill, but progress was immediately reported, and it is understood that the Bill cannot pass this session.

The Contagious Diseases Acts.

In Committee of Supply on the Army Estimates, Mr. Puleston raised a discussion as to the evil effects of the abolition of compulsory examination. Dr. Farquharson, whilst admitting that the Government were bound to act upon the adverse vote of the House of Commons, said the Acts must fail without compulsory examination. He praised the manner in which the doctors and police had performed their duties. Lord Hartington averred that he was still opposed to the step which had been taken, but he did not regard the consequent increase of disease as considerable. Mr. Campbell-Bannerman endorsed this view with regard to the navy. Lord Hartington excused the non-production of his promised Bill owing to the state of public business.

The Lunacy Laws.

On Thursday, in reply to Sir H. Holland, Lord E. Fitzmaurice stated that much information as to the lunacy laws of foreign countries was to be found in a book by Dr. Harrison of Philadelphia, entitled "Legislation for Insanity." He should be happy to show the hon. member a copy, and to procure further information if required.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following candidates passed the Second Examination in Anatomy and Physiology on July 25th:—

Alfred Percy Blenkinsop, Henry Asher Dutch, Frederick Richard Miller, Wm. Arthur John Nottingham, John Maynard Pickthall, Ernest Albert Quicke, Alfred Henry Spurrier, George William Stringfield.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 24th ult:—

Atkins, Henry Wilberforce, M.D. Toronto, Toronto.
Biden, Charles Walter, L.R.C.P. Lond., Peckham.
Bolton, John Usherwood, L.R.C.P. Edin., Wimbledon.
Coronel, Julius, M.D. Amsterdam, West Indies.
Craddock, Sidney Ernest, L.S.A., Milman-street.
Gooding, Charles Ernest, M.D. McGill College, Barbadoes.
Loring, J. Brown, M.D. McGill College, Montreal.
Macdonald, George Childs, L.R.C.P. Ed., Craven-street.
Marriott, Hyde, L.S.A., Stockport.
Miller, Thomas Hugh, L.R.C.P. Lond., Clapham.
Morgan, George, L.S.A., Brewer-street.
Parrott, Thomas Godfrey, L.R.C.P. Lond., Aylesbury.
Penny, Francis, L.S.A., Crewkerne.
Perkin, R. F. Thornton, Warwick.
Rees, William Thomas, L.S.A., Llanboidy.
Reilly, Charles Cooper, L.R.C.P. Lond., Denbigh-street.
Rowell, George Ball, M.D. McGill College, San Francisco.
Shaw, H. C. Costello, L.R.C.P. Lond., Kingston-on-Thames.
Watson, James Russell, L.S.A., Moore-street, Chelsea.

Admitted Members of the College on the 25th ult.:—

Barker, A. J. Glanville, Finsbury-park.
Collins, W. C. Glasier, L.R.C.P. Edin., Holford-square.
Drage, Lovell, Hatfield, Herts.
Harpur, Alexander, Hertford-street, Mayfair.
Innes, Charles Barclay, Hampstead.
Laslett, Thomas George, L.R.C.P. Lond., Bootle, Lancashire.
Macloglin, E. P. Plantaganet, Wigan.
Purslow, Charles Edwin, Wolverhampton.
Somers, Edward O'Reilly, Salford.
Spry, William, Southsea.
Stevenson, John, L.R.C.P. Lond., Stretford, Manchester.
Watkins, Arthur Muriel, L.R.C.P. Lond., Newton-le-Willows.
Webster, Ernest, Hulme, Manchester.
Wild, George Samuel, Liverpool.
Williams, Patrick Watson, Bristol.

Admitted Members of the College on the 28th ult.:—

Adie, Joseph Rosamond, Brixton.
Aikin, William Arthur, Clifton-place.
Barber, Frederic Samuel, Claremont-square.
Brock, J. H. Ernest, Bartholomew-road.
Brogden, Richard William, L.R.C.P. Lond., Clapham-road.
Castor, Richard Henderson, L.R.C.P. Lond., Primrose-hill.
Montbran, Pedro Louis de, L.R.C.P. Lond., Trinidad, West Indies.
Reid, A. St. George Cauldfield, Chatham.
Roberts, James Reid, L.R.C.P. Lond., Suez, Egypt.
Ruck, John Ernest, Devizes, Wilts.
Stacy, W. H. Waterhouse, Norwich.
Turner, Philip Dymock, Tulse-hill.
Voelcker, Arthur Francis, Argyll-road.

Admitted Members of the College on the 29th ult.:—

Cocking, William Tusting, Sheffield.
Elliott, John, Whitchurch, Salop.
Field, Adolphus Theodore, L.S.A., Shepherd's-bush.
Fowler, Alfred Henderson, L.R.C.P. Lond., Sharsted-street.
Gabriel, William Maurice, Gloucester-gardens.
Habershon, Samuel Herbert, Brook-street.
Hall, Alfred Richard, Stanraer-place.
James, John, Llangwyryfon.
Lavie, Tudor German, Queen Anne's-gate.
Morgan, T. W. Sewell, L.S.A., Roupell-park.
Penrose, Francis George, Gower-street.
Roberts, Owen William, L.R.C.P. Lond., Cambridge-gardens.
Smith, E. A. Cloete, L.R.C.P. Lond., Woolwich.
Taylor, Alfred Ernest, Acton.
Tubby, Alfred Herbert, Kensington.
Vernon, J. J. Dean, Audley, Newcastle-under-Lyne.

Admitted Members of the College on the 30th ult.:—

Andrews, Charles, Hammersmith-road.
Foulerton, A. G. Russell, Norland-square.
Gayford, Charles, Brecknock-road.
Hornby, Thomas Edmund, Mile-end.
Jackson, Percy Vaughan, Ballina, county Mayo.
Muspratt, Charles Drummond, Clapham.
Palmer, Sydney Joseph, Seaton, Devon.
Pearse, Frank, L.R.C.P. Ed., Exeter.
Randell, R. M. Henry, Sydenham.
Sorest, Frank Arthur, Belsize-square.
Washbourn, William, Blackfriars, Gloucester.

[In the list published last week the name Frederick Bryden, M.B. Melbourne, should have been Frederick Bryan, M.B. Melbourne, Australia.]

COLLEGIATE FINANCES.—From the last annual report, just published, of the receipts and expenditure of the College in the year ending Midsummer-day last, it appears that the former amounted to £20,024 5*s.*, derived principally from fees paid on examinations for the Fellowship and Membership of the College, which produced £16,917 7*s.*; fees paid on admission to Council, Court of Examiners, and to Fellowship, £94 10*s.*; dividends on stock and rents from chambers adjoining the College, £2713 17*s.* 3*d.* The disbursements amounted to £20,046 7*s.* 4*d.*, the largest item being in fees paid to the Council and members of the Court and Board of Examiners—viz., £7674 4*s.* The next largest item was for salaries and wages for the officers and servants in the three departments, office, museum, and library—viz., £3784 14*s.*; taxes, rates, diploma stamps, and insurance, £1469 9*s.* 3*d.*; miscellaneous items, £441 11*s.* 6*d.* In the extraordinary expenditure, £700 appears in honoraria to Messrs. Trimmer, Goodhart, and Doran; leaving a balance at the bankers of £2065 3*s.* 5*d.*

THE HUNTERIAN MUSEUM.—In his interesting annual report on the state of the Museum, Professor Flower states that an unusually large number of specimens have been added to the Pathological section. The series of Diseases of the Teeth, previously small and incomplete, have received an addition of 130 specimens, collected from various sources, many of them presented by Mr. Alfred Coleman, F.R.C.S. Among other notable contributions was a very valuable specimen of actinomycosis, affecting the lower jaw of a heifer, and two examples of the same disease of the tongues of oxen, which were presented by Mr. Alfred Lingard. Upon the conclusion of his course of lectures on the Surgery of the Urinary Organs, Sir Henry Thompson presented to the Museum the cabinet containing his collection of calculi, the result of 812 operations by lithotrity and lithotomy, which has been already noticed. Among valuable additions to the series of Human Osteology, Prof. Flower specially mentions a series of skulls and skeletons of natives of Sierra del Fuego, presented by the Rev. Thomas Bridges, of the South American Missionary Society.

UNIVERSITY OF EDINBURGH. — The following candidates have passed the final examinations. Those marked thus * have passed with distinction:—

A. M. Adams, M. S. P. Aganoor, N. E. Aldridge, J. H. L. Allott, M. Altounian, S. Arnold, E. H. Bannister, J. Barrie, G. B. Batten, J. B. Bawden, T. W. Bell, D. Berry, *A. Bissett, J. A. Blair, F. M. Blumer, B.A., T. Bonar, F. F. Bond, J. E. Bottomley, *P. Bowes, H. Bramwell, H. R. Bramwell, R. A. Brewis, *D. M. Brown, *R. M'D. Brown, T. A. Brown, S. B. Burns, J. M. Cadell, E. K. Campbell, *K. Carmichael, W. R. Carter, L. M. F. Christian, T. G. Churcher, R. L. Clark, D. Cloete, J. G. Cossins, R. S. Coulthard, A. H. Croucher, W. L. Cullen, A. S. Cumming, T. B. Darling, H. H. Davies, T. L. K. Davies, J. D. Davies, T. W. Dewar, *D. G. Donaldson, D. R. Dow, M.A., T. Easton, M.A., E. Eckersley, T. Edwards, H. S. Fairbank, J. E. A. Ferguson, J. H. Ferguson, T. Ferrier, G. Fisher, W. S. Flett, A. Fraser, T. Fraser, M.A., T. A. W. Fulton, C. H. Gage-Brown, W. G. Galletly, D. J. Galloway, D. F. Gardiner, L. R. Gray, F. G. Greenbury, E. Greenough, B. Griffiths, C. D. G. Halles, *W. W. Hall, J. R. Henderson, T. M. Hodgson, W. A. Holmes, T. A. F. Hood, *R. Howden, R. S. Hubbersty, Dirk de Vos Hugo, J. Huwe, B. E. Iastrzebski, J. O. Jones, G. H. Kenyon, M. A. Ker, D. O. Kerr, J. Kerr, W. V. M. Koch, D. Laing, W. Laing, C. A. Lane, *W. S. Lang, A. E. G. Langschmidt, C. N. Lee, A. W. M. Leicester, L. H. Le Merle, C. L. Lempriere, W. G. Little, M.A., G. S. P. Loubser, W. W. R. Love, C. J. Macalister, B. F. P. M'Donald, A. G. Macdonald, W. C. M'Ewan, M.A., J. M'Gibbon, A. MacGregor, D. MacGregor, M.A., H. J. Mackay, W. B. Mackay, J. C. Mackenzie, *J. H. Mackenzie, M.A., M. MacLaren, B.A., A. Maclennan, J. M'Leod, B.A., J. M'Myn, A. Macqueen, G. D. Malan, L. G. Mallam, A. Matheson, A. Menzies, W. J. van der Merwe, G. Michael, R. Mitchell, M.A., D. Morgan, A. E. Morison, D. Mowat, W. J. Munro, B.A., F. Morgan, B.A., B. H. Nicholson, J. Noble, F. B. O'Flaherty, *A. G. Paterson, M.A., C. E. Paterson, *F. A. Pockley, J. M. S. Preston, E. F. T. Price, W. T. Prout, A. C. Purchas, T. R. Rait, *F. M. Reynolds, T. Rhodes, W. Richards, J. Rigg, A. L. F. Robertson, J. Robertson, J. C. Robertson, R. M. Robertson, A. J. T. Roux, J. Rutter, Y. S. Sanitwongse, T. S. Shaw, *F. H. Simmons, G. R. Smuts, W. Sneddon, J. S. Stephen, H. F. D. Stephens, S. H. A. Stephenson, *J. Stevens, M.A., C. H. Stewart, B.Sc., J. W. Stirling, J. Stuart, G. H. H. Symonds, J. C. Taylor, G. Thomson, R. S. Thornton, C. G. Thorp, J. Tod, Cecil G. Traill, George A. Tullis, J. W. O. Underhill, E. Walker, N. H. Walker, N. P. Walker, D. Wallace, T. A. Watson, S. F. Wernich, A. Westlake, R. H. A. Whitelocke, W. J. Will, *C. Wilson, A. B. Winder, J. E. Wolfhagen, J. C. Young, B.Sc.

ROYAL COLLEGE OF SURGEONS IN IRELAND. — At examinations held on July 14th and following days, the undermentioned were admitted Licentiates of the College:—

Arthur J. Barlow, Henry T. Baylor, George Brown, William J. Connor, John J. Costello, Samuel A. Crotty, Robert Cross, George Davidson, Henry G. Day, Ulysses C. H. De Burgh, William Dillon, Joseph E. Dormer, Andrew A. Doyle, Alexander T. Drake, Fitzwilliam Evans, Charles J. Falkner, Martin Fennelly, Richard H. Fetherston, Robert Gloster, William E. Grandy, John Hobbs, Samuel Horneck, William G. F. Johnston, Cornelius J. Kelly, Patrick J. Kiernan, Alexander D. La Touche, Edmund D. La Touche, Richard R. Leeper, Kenneth Mackay, Michael J. Magan, Barcroft Manly, Robert F. McArdle, Arthur McCutcheon, John J. McDonnell, John McFadden Arthur McGaman, John McGrane, Henry McLaughlin, William McManus, Hugh Morrison, Timothy Mulcahy, Edwin G. Newell, John J. Norton, James Oakly, Alfred Ross, James L. Rowlette, Francis H. Sinclair, Alfred J. Smith, James H. Stewart, Augustus Tabuteau, Hamilton J. Thornbury, Launcelot A. Whitcroft.

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on July 24th:—

Field, Adolphus Theodore, Sunnyside, Shepherd's-bush.
Hall, William Hall, Cumberland-park.
Lewis, James King, Old Woolwich-road.
Pollard, George Frederick, Earl's-court-road, Kensington.
Silverlock, Richard Greenhill, Northwold, Norfolk.
Vallance, Ernest, The Deanery, Stratford.
Warwick, Francis Jas., Vaughan-road, Loughborough.

THE Chelsea demonstration in aid of the Victoria Hospital for Children realised £237 6*s.*, as compared with £105 collected last year.

AN official inspection of the Thames from Westminster to Erith, on behalf of the Metropolitan Board of Works, has been made by Dr. Dupré and other experts.

A NEW Eye Hospital was opened at Birmingham on the 24th ult. The cost of the building and appliances is estimated at £20,000.

AT the examination in Diseases of Women held at the Hospital for Women in July, the first prize was awarded to Mr. J. R. Jones, of University College Hospital, and the second prize to Mr. Barber, of St. Bartholomew's Hospital.

THE Congress of German Naturalists and Physicians will be held at Magdeburg, Sept. 18th to 23rd.

A NEW Masonic Lodge, which was consecrated at Waltham-cross on the 23rd ult., has been named the "Wilson Iles Lodge, No. 2054, in memory of the late Bro. F. H. Wilson Iles, M.D., of Watford.

BRITON LIFE ASSOCIATION.—The annual report of this Association was presented to the general meeting of shareholders and policy-holders on Thursday, the 17th ult. The premium on new business (£5253 19*s.* 3*d*.) is in excess of the previous year. A dividend of 5 per cent. was declared, and the funds increased to £54,396 15*s.* 7*d*. We would again call attention to the advantages offered by this Company to insurers who are total abstainers from alcohol.

THE FISKE FUND PRIZE.—At a meeting of the Rhode Island Medical Society on June 19th, it was stated that a prize of $300 for the best essay on "The Origin and Progress of the Malarial Fever now Prevalent in New England" had been awarded to Dr. C. V. Chapin, the Superintendent of Health of the City of Providence. The following subjects were proposed for the year 1885: "Original Investigations in Household Hygiene," "The Present State of the Germ Theory of Disease," "Physiological and Pathological Effects of the Use of Tobacco," "Migraine, its Nature and Treatment." The prize for the best essay to be $200.

THE SALOP AND NORTH WALES EYE, EAR, AND THROAT HOSPITAL.—The sixty-fourth annual general meeting of the subscribers to this institution was held on the 23rd ult. During the past year 153 in-patients have been received and 1139 out-patients attended, making a total of 1392. Only fourteen beds have hitherto been provided, but the committee hope during the present year to supply the full complement—viz., twenty. The total receipts during the year were £1814 6*s.* 8*d*., and the expenditure £1787 12*s.* 9*d*., leaving a balance of £26 13*s.* 11*d*. in favour of the hospital.

VACCINATION OFFICERS' ASSOCIATION.—The monthly meeting of this Association was held on the 19th ult., at the Charing-cross Hospital Medical School. It was resolved that each member of the Association be requested to furnish the secretary with the following information:—1. To show how promptly on the action of the vaccination officer the protection of vaccination can be secured to those in infected houses. 2. Any instances in which such prompt action has illustrated its advantages. The thanks of the Association were also expressed to the National Health Society for the pamphlet issued by them calling the attention of the public to "Facts concerning Vaccination."

ST. JOHN AMBULANCE ASSOCIATION.—A conference of the London and provincial medical staff was held on Friday, the 25th ult., by permission of the council, in the theatre of the Royal United Service Institution, for the purpose of discussing points connected with the instruction and examination of classes. Dr. Sieveking presided, being supported by Sir E. Lechmere, Mr. J. Furley, Mr. V. B. Kennett, Captain R. Dallas, Captain H. C. Perrott, and other gentlemen. The chairman said the movement which they had met to further had scarcely any parallel in modern times. The assistance which had been rendered by the medical profession had been most marked; but they would never have done what they had if it had not been for the great enthusiasm and hard work in the first instance of Colonel Duncan and the perseverance and talent of Mr. Furley. Dr. H. Swete of Worcester then brought forward some suggestions for securing uniformity in the Association's examinations, and for improving the stretcher-drill. Surgeon-Major Evatt proposed that the nursing certificate should be thrown open for competition by the male classes. Dr. A. S. Eccles suggested, and Surgeon-Major Hutton seconded, measures for more efficient instruction in the treatment of the apparently drowned. Colonel Paris, chairman of the Liverpool Centre, then exhibited some interesting and useful models for illustrating the lectures. In the evening a dinner was held at the Holborn Restaurant, Sir E. Lechmere presiding. At a meeting of the Association on the 29th ult., a lecture was delivered by Baron Dr. Mundy on the urgent necessity for making Surgical Provision for Railway Accidents.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

DAVIES, JOHN, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the First District of the Bath Union.

DIXON, J. R. L., M.R.C.S., L.R.C.P.Ed., has been appointed Junior House-Surgeon to the Royal Southern Hospital, Liverpool, vice A. H. Gordon, M.R.C.S., promoted.

FOX, ROBERT FORTESCUE, M.R.C.S., L.S.A.Lond., has been appointed Resident Physician to the Strathpeffer Spa.

GORDON, A. H., M.R.C.S., L.R.C.P.Ed., has been appointed Senior House-Surgeon to the Royal Southern Hospital, Liverpool, vice W. H. I. Sellers, M.B., C.M., resigned.

HENRY, ROBERT, M.D., M.Ch. Q.U.I., has been appointed Medical Officer of Health for the Comber Dispensary District.

HUDSON, CHARLES LEOPOLD, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the Middlesex Hospital.

JOSEPH, J. RAPHAEL, L.F.P.S.Glas., has been appointed Resident Surgeon at the Hospital for Pacific Islanders in the Maryborough District, Queensland.

KNIGHT, F., M.B.Lond., M.R.C.S., has been appointed Second House-Surgeon to the Royal Southern Hospital, Liverpool, vice F. J. Allen, M.A., M.R.C.S., L.R.C.P., resigned.

LEDIARD, H. AMBROSE, M.D.Ed., F.R.C.S.Eng., has been appointed Surgeon to Her Majesty's Prison, Carlisle, vice J. A. Macdougall, resigned.

MACINDOE, ALEXANDER, M.B., C.M.Glas., has been appointed Medical Officer for the Ashley District of the Drayton Union.

MOFFITT, J. ERNEST JAMES, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Acting Resident Medical Officer to the Ballarat Hospital, Victoria.

PHILLIPS, EDWARD ENGLAND, L.R.C.P., M.R.C.S., & L.S.A.Lond., has been reappointed Medical Officer of Health for the Southend Urban Sanitary District.

PIGGOT, ALLEN, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Fifth District of the Bromley Union, vice Booth, resigned.

SHEILD, MARMADUKE, M.B., B.S., F.R.C.S., has been appointed Curator of the Museum of St. George's Hospital.

Births, Marriages, and Deaths.

BIRTHS.

BALLANCE.—On the 24th ult., at 56, Harley-street, Cavendish-square, W., the wife of Charles A. Ballance, M.S.Lond., F.R.C.S.Eng., of a daughter.

LEADAM.—On the 23rd ult., at Gloucester-terrace, Hyde-park-gardens, the wife of W. Ward Leadam, M.D., of a daughter.

RYAN.—On the 24th ult., at Emly, Tipperary, the wife of Charles E. Ryan, M.D., of a daughter.

MARRIAGES.

BROWNE—FLEMING.—On the 30th ult., at Gleaorchy House, Edinburgh, by the Rev. Lewis Davidson, M.A., of Mayfield, F.C., assisted by the Rev. Dr. Reid, of Lothian-road U.P. Church, W. J. Browne, L.R.C.P.Ed., L.R.C.S.Ed., of 33, Warrender-park-road, Edinburgh, to Gracie Strang, elder daughter of the late Patrick Fleming, and granddaughter of the late Sir Robert Boag, J.P., of Belfast.

BROWNE—WILSON.—On the 23rd ult., at Christ Church, Highbury, Robert Browne, M.D., eldest son of the late Hugh Browne, Esq., J.P., of Rathgar, Dublin, to Frances, second daughter of the late John Wilson, Esq., of Compton-terrace, Highbury.

CUFF—SAWYER.—On the 24th ult., at St. Mary's, Lewisham, Robert Cuff, M.B., of Scarborough, to Marian, eldest daughter of John Sawyer, of Craythorne House, Lewisham-hill.

HARRIS—CURTIS.—On the 24th ult., at the Congregational Church, Wellingborough, U. A. Carpenter Harris, M.R.C.S., L.D.S.Eng., of Mount-view-road, Hornsey, London, eldest son of Underwood P. Harris, of Bethune-road, Amhurst-park, to Nellie, second daughter of Thomas S. Curtis, of Rose-hill, Wellingborough.

NICHOLSON—BEDWELL.—On the 29th ult., at All Saints' Church, Hull, Frank Nicholson, M.D.Lond., of 29, Albion-street, Hull, to Grace, second daughter of F. A. Bedwell, Esq., Judge of County Courts.

SCOTT—TRASK.—On the 29th ult., at St. Mary's Church, Bathwick, by the Rev. J. J. Scott (father of the bridegroom), assisted by the Rev. J. C. Clutterbuck, D.D., and the Rev. A. Cassan, Richard J. H. Scott, Esq., M.R.C.S.Eng., to Alice Marian, eldest daughter of James Trask, Esq., of Bayfield House, Bathwick-hill, Bath.

STATHERS—ABBOTTS.—On the 29th ult., at Holy Trinity Church, Burton-on-Trent, by the Rev. W. F. Drury, George Nicholson Stathers, M.R.C.S., of Stokenchurch, Oxon., to Maud, second daughter of R. W. Abbotts, Esq., of Burton-on-Trent.

DEATHS.

BELL.—On the 28th ult., at Manor-place, Edinburgh, Alexander Montgomerie Bell, M.D., F.R.C.S.E.

RIORDAN.—On the 10th ult., at Marksbury, Somerset, Thomas Travers Riordan, M.D., formerly of Castleconnell, co. Limerick, aged 80.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, July 31st, 1884.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
July 25	29·91	N.W.	58	54	106	68	50	·12	Cloudy
,, 26	30·13	W.	56	51	85	64	46	..	Cloudy
,, 27	29·82	S.W.	60	58	105	69	53	·34	Raining
,, 28	30·12	N.	58	55	106	71	54	·15	Cloudy
,, 29	30·03	W.	62	54	89	69	56	·13	Overcast
,, 30	30·19	N.W.	62	65	107	75	61	..	Overcast
,, 31	30·20	W.	66	62	111	79	59	..	Hazy

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

WIESEN AS A HEALTH RESORT.

WE are glad to learn from a correspondent that the drains have been thoroughly overhauled and put in order, as promised; and that the system of drainage and the waterclosets are better, in his own experience of the past three winters, than at any place on the Riviera or Engadine.

Mr. John Fletcher Little.—We do not know of any decided cases, but we are clearly of opinion that "an amnesic person who cannot write" can make a sound will. All that is legally necessary is that the testator shall at the time understand the nature of the act, and be able to sign the deed—it may be with the physical aid of another person. As, however, such a will might not improbably be disputed, it would be well for it to be accompanied by a certificate signed by two competent independent medical witnesses. By "competent" we mean well versed in the forms of interference with the outward expression of thought and other mental operations, and the bearing these have upon the rationality of a particular process—e.g., making a will.

Quandary and others.—We may probably in a future number give some general information on the point.

VACCINATION WITH OLD LYMPH.

To the Editor of THE LANCET.

SIR,—The success attending Dr. N. Gosset-Brown in his use of fourteen-year-old lymph, as communicated by him in your issue of July 19th, cannot fail to be interesting; and I feel sure that your readers will be glad to receive further citations as to success or non-success following the use of old lymph, with a view of really ascertaining as to what length of time vaccine lymph may be supposed to retain its virtues and properties, as there is very little (if any) authentic information given on the subject.

A short time ago I had the opportunity of testing the efficacy of some lymph collected so far back as February, 1854, by the late Mr. Robert Ceely of Aylesbury. The contents of six hermetically sealed tubes were tried on six individuals, members of different families, and all of whom have since been successfully revaccinated with recent lymph, with the result that in every case the lymph proved itself perfectly inert. I may say that, contrary to my expectation, the lymph was in a fluid state and had apparently lost much of its specific gravity, for it was (for vaccine lymph) particularly thin and watery. I regret that I did not carefully examine it microscopically, and that I do not possess any more.

I am, Sir, yours obediently,

Regency-street, S.W., July 22nd, 1884. CHARLES F. RIDEAL.

THE FORTHCOMING MEDICAL AND PHARMACEUTICAL EXHIBITION.

WITH respect to the contradictory statements which have appeared in the daily journals regarding the use of the names of the medical staff of University College Hospital in support of a Medical and Pharmaceutical Association, Mr. Berkeley Hill, Dean of the Faculty of Medicine and Chairman of the Medical Committee of University College Hospital, states: 1. That the secretary to the Hospital, Mr. Nixon, greatly exceeded his instructions by stating that he (Mr. Hill) had agreed to the use of the names of the medical staff of the hospital when he wrote, on June 19th, to Mr. Southwick Rogers the letter which that gentleman has published with his own of July 23th in the daily newspapers. 2. That when the medical committee of the hospital met on July 9th, the application for the use of the names of the medical staff was considered, and positively refused by that body. Reference to the hospital letter-book shows that on July 11th Mr. Nixon wrote to Mr. Rogers two letters enclosed in one cover, one informing him that the medical staff declined to give the use of their names, the other concerning some other matter. On July 12th Mr. Humphreys, through his clerk, acknowledged the receipt of Mr. Nixon's letter of the 11th, and said it had been forwarded to Mr. Southwick Rogers. 3. That the circular containing the names of the medical staff, in spite of this prohibition, came first under his notice on July 26th, when he wrote to the daily newspapers a warning that the names of his colleagues were being used without their consent. He wrote at the same time to Mr. Southwick Rogers, requesting that he would at once withdraw the circular from circulation, and informing him of what had been done with regard to the public newspapers.

A. H.—Absolute cleanliness and avoidance of perturbation as far as possible are the only general precautions that can be indicated. Contraction of disease by nurses fitted to their work is very unusual.

Major Terry is thanked for his communication.

INFANTILE DISEASE AND MORTALITY.

To the Editor of THE LANCET.

SIR,—During my short residence here I have been struck by the number of patients brought up for treatment suffering from the effects of improper feeding, and by the number of cases which inevitably succumb, notwithstanding the advice and medicine given, in consequence of prolonged malnutrition. I refer to two classes of cases: first, those patients, young babies under nine months, who are fed with all kinds of patent farinaceous foods, biscuits, arrowroot, bread, and the like; and, secondly, children varying from eighteen months to two and three years, who are fed with very little else besides the impoverished milk from their mothers' breasts. It has occurred to me that possibly some good might be effected were every institution of this kind to head all the out-patient papers or cards with the instructions that "no child should under any circumstances be fed with anything but milk from the breast or cow's milk and water until nine months old," and that "continued suckling after this time is bad both for the baby and its mother." Some such instructions would, at all events, embrace the rough truth, and if followed out would prevent much of the deplorable sickness we see every day, and the loss of life which is of such common occurrence.

I am, Sir, yours truly,

HARDING H. TOMKINS, M.R.C.S.,
Assistant House-Surgeon, Infirmary for
July 28th, 1884. Children, Liverpool.

Verax.—We think that an assistant should consult with his principal both as regards any serious case and the propriety of giving it up.

Enquirens shall be answered next week.

PYRETHRUM ROSEUM AS A DISINFECTANT.

PROFESSOR C. V. RILEY, the well-known American entomologist, has presented to the Committee of the International Forestry Exhibition in Edinburgh a series of reports on the best mode of preventing the damage done by insects to trees. He is strongly of opinion that for the destruction of the micro-germs to which so much epidemic disease has recently been traced effective use might be made of the pyrethrum roseum of Asia, which, he says, has lately been imported into America, and is cultivated in large quantities for the sake of its flowers, which contain a volatile oil of great value as a field insecticide. As to kerosene as a disinfectant, he has found the subjoined formula particularly efficacious:—Kerosene, two gallons; common soap, half a pound; water, one gallon. The mixture of soap and water is added boiling hot to the kerosene, and the whole is then churned with a force-pump for five or ten minutes, forming a cream, which thickens on cooling, and adheres without oiliness to the surface of the glass. From this formula three gallons of emulsion are obtained, which, with water, may be made into three gallons of wash, the cost being about three farthings a gallon. In applying it a force-pump and hose with a nozzle (newly invented by Professor Riley) are used, the new nozzle being capable of producing the finest atomised spray.

HISTORIC DROUGHTS.

AN Italian *savant* passes in review the hot years of history, beginning with 627 A.D., in which the water-supply of France, Germany, and Italy was completely dried up. In the year 897 the heat was so great on the Continent that vast numbers of peasants were struck down with *coup de soleil* in the fields; in the year 993 vegetation was burnt up by the sun as if by fire; in A.D. 1000 the wells and watercourses were all dried up, and the masses of fish heaped up on the banks of rivers and lakes produced a pestilence by their putrefaction. In 1132 the earth was so scorched with the intense solar heat that great fissures were made in it for miles, and seven years afterwards the same phenomenon was witnessed, especially in Italy. The years 1260, 1277, 1303, and 1304 were all signalised by protracted drought, insomuch that the largest rivers in Europe, the Rhine, the Seine, the Po, the Tiber, shrunk to the tiniest streamlets. In 1615 and 1625 a similarly excessive heat prevailed all over Europe, and in 1705 the temperature rose so high as sometimes to resemble that of a glass manufactory. Butcher's meat was cooked by the sun, and from mid-day till 4 P.M. no one ventured out of doors. For six months in 1718 not a drop of rainwater fell, and in 1753 the thermometer averaged between 35° and 40° C. Bologna was visited by excessive heat in 1779, so that many died of asphyxia, and to escape a similar fate the inhabitants took refuge in pits and caves underground. The month of July, 1793, was also one of intolerable heat. All the vegetation and the harvest withered up. The furniture in houses cracked and split, and meat became putrid almost under the butcher's hands. Hurricanes and earthquakes accompanied the intense droughts of 1811 and 1822. In some countries the earth delivered itself, under the contained heat, of hosts of field mice, which ravaged the most fertile plains. Of these mice no fewer than 2,000,000 were destroyed in fifteen days in one country alone. In 1832 the fearfully hot weather in Paris was coincident with the cholera epidemic in which 20,000 persons died.

Mr. Alex. Faulkner.—The point mentioned is hardly of sufficient importance for publication.

Mr. Thomas Jones.—We do not recommend practitioners.

SANITARY STATE OF HYERES.

To the Editor of THE LANCET.

SIR,—My attention has been directed to a communication from a correspondent in THE LANCET of July 19th, entitled "Cholera and Sanitation on the Riviera." In justice to Hyères and its enterprising and liberal-minded municipal council, will you allow me to suggest that, however true the striking picture drawn by your correspondent may have been years ago, it is no longer so. Old streets have been widened and paved, new streets have been made, and all the water channels have been cleaned out, properly levelled, and are regularly flushed. There are no sewers as understood in England. These channels exist only for surface water; everything else is cast into the cesspools, except the kitchen refuse, which is placed in the street during the night, and carted off before daybreak. The cesspools are carefully supervised and regularly emptied; in the villas and hotels occupied by English visitors they are efficiently ventilated, and the watercloets trapped. The municipality are making every effort to ensure that Hyères shall be a health resort in more than name; that the benefits conferred by its mild, stimulating climate shall not be marred by preventable evils; and from my own experience—an experience extending over seven years—I can vouch for the success of their endeavours.

I am, Sir, yours truly,

W. P. BIDEN, L.R.C.P.Ed.

St. Mary's-road, Peckham, S.E., July 23th, 1884.

TREATMENT OF LUPUS VULGARIS BY THE THERMO-CAUTERY.

A propos of an article in THE LANCET of the 26th ult. on the "Complete Destruction of Lupus Vulgaris," with illustrations of an instrument, Dr. Kerr reports a case which recently came under his notice in the Dumfries and Galloway Royal Infirmary, in which the disease lupus vulgaris extended over the greater part of the left cheek and side of the neck, involving the ear, half of which was eaten away; it also extended across the front of the neck, over and under the chin, and up the right cheek nearly to the right ear. To scarify or scrape so large a surface was thought rather a serious undertaking; but something had to be done. On the morning of the operation the use of a thermo-cautery was decided upon. When the patient, a lad nineteen years of age, was fully under chloroform the gelatinous covering of the sore was rubbed off with a hard sponge and pledgets of cotton-wool, and the thermo-cautery applied to the denuded and bleeding surface. This was done piecemeal, so as to avoid excessive bleeding. The sore was dressed with weak boracic ointment, and a hypodermic injection of morphia given for the pain. This treatment turned out most successful. The raw surface showed healthy granulations from the first, and, except an occasional touch of the cautery to some sluggish spots, the case required no further treatment, the skin healing nicely, to the satisfaction of all concerned.

A MEDICAL PATRON IN THE ISLE OF MAN.

A MOST astonishing account reaches us of the action of a distinguished official in the Isle of Man. Not content with appointing a complete stranger, a young medical man, to an official professional position over the heads of three or four senior medical residents, he has given his *protégé* a letter of introduction to the manager of the principal hotel. The fortunate young man seems only too much of a consenting party to this strange and unusual action of his patron. We suppress names at present, as really the account seems almost incredible, either as regards a high official or a recently qualified, and doubtless modest and diffident, member of the profession.

Medical Student.—We do not doubt that anyone who is familiar with the ophthalmoscope would be able to recognise coarse disease of the fundus of the eye—such, for example, as the presence of blood clots, detachment of the retina, and even optic neuritis, if well marked; but we should expect that in a case which was about to become the subject of medico-legal inquiry the ophthalmoscopic examination would be conducted with all the precautions requisite to avoid error, amongst which a darkened chamber and a good steady light are conspicuous.

Dr. Theodore Ewart.—The paper is marked for insertion.

SMALL-POX *ALIAS* CHICKEN-POX, &c., IN BASUTOLAND.

To the Editor of THE LANCET.

SIR,—A leading article in your issue of May 10th on the unfortunate discrepancy of opinion amongst the members of our profession at Kimberley and elsewhere as to the real nature of the epidemic of eruptive fever now raging amongst the native population in some parts of South Africa leads me to believe that an account of this disease as seen by me in Basutoland may be interesting.

The disease has in many cases all the premonitory symptoms of ordinary small-pox, the head symptoms being the first complained of, and almost always present, though the lumbar pains and vomiting are absent. The eruption, as regards incubation, development, and decay, corresponds very nearly in essential particulars with that seen in small-pox. The vesicles, however, are not of one uniform shape; some are oval, some are round and umbilicated. The oval ones collapse on being pricked, the round ones do not. Those vesicles appearing in the mucous membranes of the mouth are always of the round umbilicated form, and should, in my opinion, decide the true nature of the disease. When the principal proportion of the vesicles are small oval-like blisters, and collapse on being pricked, one might be led to say that the case resembled more closely chicken-pox than small-pox; possibly others may have been misled on similar grounds. In the discrete the vesicles frequently commence to die or dry up as they appear, but generally the case proceeds from its commencement to its termination in the usual manner. The confluent generally die from the tenth to the fifteenth day of the eruption. Delirium is not a marked symptom, and these cases have not given very much trouble. There is not much pitting or much smell from the confluent cases. The form most frequently met with is the confluent. The persons attacked are of all ages; the old and young are the first victims, the old, as a rule, dying first. Many die as the eruption begins, others at the suppurating stage, and but few between these stages. Where isolation has been carried out and quarantine kept the disease has not spread. No European has been attacked yet, and only three coloured people, one of whom died of confluent small-pox. Most of the coloured population have been vaccinated, and the three cases referred to are the only exceptions, for not one of them was vaccinated.

I am, Sir, yours truly,

Basutoland, June 15th, 1884. S. CARTWRIGHT REED, M.D.

Mr. E. T. Le Quesne.—By no means.

Mr. Roderick Maclaren.—The suggestion shall receive consideration.

THE HEALTH EXHIBITION.

A CORRESPONDENT suggests the opening of the Health Exhibition on Sundays free of charge, visitors to be invited to contribute to the Hospital Sunday Fund, boxes being placed for that purpose in different parts of the building.

Balbus.—Probably Niemeyer's work would answer the purpose.

Dr. G. Ogilvie.—Yes.

Dr. Barrs (Leeds).—In an early number.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Lyon Playfair, London; Dr. Goodwin Timms, London; Dr. Maclaren, Carlisle; Dr. Byers, Belfast; Dr. Kerr, Dumfries; Dr. Sturges, London; Mr. Jones, Manchester; Mr. J. M. Balfour, Edinburgh; Mr. Wheeler, Ilfracombe; Mr. H. J. Thompson, Sevenoaks; Mr. J. M. Clark, London; Dr. Bristowe, London; Dr. Hassall, Locarno; Mr. E. E. Phillips, Southend; Mr. A. Drysdale, Mentone; Dr. Barrs, Leeds; Mr. G. Browne, Marseilles; Mr. J. Oliver, London; Mr. Batterham, Wolverhampton; Dr. Wise, Malaga; Messrs. Campbell and Co., Paisley; Dr. Dyce Duckworth, London; Dr. Lionel Beale, London;

Dr. Moir, Glasgow; Mr. Bird, Falmouth; Mr. Woodward, Birmingham; Mr. Craig, Bankhead; Mr. Hewetson, Wisbeach; Mr. Wickham, Gosforth; Dr. Mitchell, Templemore; Messrs. Booth and Fox, Cork; Mr. Lee, Manchester; Mr. Motherwell, Glasgow; Mr. Rice, Surrey; Messrs. Smith and Son, Dublin; Mr. Hodgson, London; Messrs. Condy and Mitchell, London; Mr. Brown; Dr. Tily, Chiswick; Messrs. Brook and Co., Liverpool; Mr. Wilson; Mr. Cooper, Ross; Dr. Clarke, Tunbridge Wells; Messrs. Smith and Co., London; Dr. Butler, Woolwich; Mr. Hawkins, Bushey; Mr. Birdwood, Purfleet; Mr. Forbes, London; Dr. Swann, Battley; Mr. Wharton, London; Deputy Surgeon-General Fowler; Mr. H. A. Smith, Ealing; Mr. F. Little, Ben Rhydding; Brigade Surgeon McDowall, Toulon; Mr. Maxwell, Leith; Dr. Bury, Manchester; Dr. Coupland, London; Mr. Barwell, London; Mr. R. J. Collins, London; Dr. Robertson, Kimberley; Mr. L. Kempe, London; Mr. F. P. Atkinson, Surbiton; Mr. Le Quesne, Tring; Mr. T. Mitchell; Dr. Elder, Nottingham; Dr. Roberts, Manchester; Mr. Woodland, Bournemouth; Mr. Lovell, Cambridge; Messrs. Sampson Low and Co., London; Messrs. Bell and Co., Lancaster; Mr. Trennery, Bristol; Mr. Armstrong, Manchester; Mr. Elliott, London; Messrs. Hoffnung; Mr. T. W. Hughes, Criccieth; Mr. Welford, London; Mr. Dessurne, London; Mr. Kidd, West Hartlepool; Mr. Ensworth, London; Herr W. de Mayer, Utrecht; Mr. T. J. Woodrow, London; Quandary; A M.D. of Twenty Years' Standing; An Associate; Enquirens; M. T., Bexley; Balbus; Physician; A Foreigner in Fashionable Lodgings; L. E. H.; R.; J. Q. P.; W. P., Manchester; N. S.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Main, East Ilsley; Dr. Hilliard, Aylesbury; Dr. Bramwell, Edinburgh; Mr. Dixon, Leeds; Mr. Temple, Kington; Mr. Loveridge, Lynn; Dr. March, Rochdale; Mr. Baron, Manchester; Mr. David, Builth; Mr. Hartin, Worcester; Messrs. Motterahead and Co., Manchester; Dr. Ward, Oxford; Mr. Kershaw, Middleton; Mr. Sharp, Walsall; Messrs. Lindsay and Son, London; Messrs. McGee and Co., Belfast; Messrs. Deighton and Co., Cambridge; Dr. Oliver, Harrogate; Messrs. Beck and Co., London; Messrs. Bentin and Sons, Southport; Mr. James, Pentre; Mr. T. W. Cunningham, Edinburgh; Mr. Browne, Hong Kong; Mr. Nicholson, Hull; Mr. Carter, London; Miss Moorhouse, London; Mr. Sloane, Bradford; Mr. Marrian, Leicester; Mr. Gwynne, Cannock; Mr. Tomson, Abergavenny; Mr. Pearson, Sheffield; Mr. Hemmons, Bristol; Mr. Morgan, Cymmer; Mr. Hoyle, Liddersley; Mr. Austel, Carlisle; Mr. James, Manor-park; Mr. Howard, Barnsley; Mr. Marsh, Stafford; Mr. Hill, Leeds; Mr. Barff, Leytonstone; Mr. Salmon, London; Mr. Cornish, Manchester; Messrs. Brook and Co., Liverpool; Mr. Roocroft, Wigan; Mr. Scattergood, Leeds; Mr. Davies, Bath; Mr. Walton, Blackpool; Mr. Stathers; Messrs. Keith and Co., Edinburgh; Dr. Hella, Hampstead; Secretary, Bristol Infirmary; Truth, Camberwell-road; Syntax; Scotia, Notts; J. P., Bradford; X., Aberdeen; A. C.; Z., Birmingham; L. O.; M.D.; Surgeon, Dublin; Galen; Æsculapius; H. L. G., Dorrington; M.B., Huddersfield; Matron, Itchin; C. A. N., York; E. P. T., Duffryn; Medicus, Sheffield; F., Gibraltar; R. A., Bow; Alpha, Liverpool; Scalpel; Medicus, Southwark; N. R. P.; A. B. K.; Lady Superintendent, Cambridge; C. D., Dawlish; Dr. S., Nelson; Medicus, Southport.

Bradford Observer, Eastbourne Courier, Macclesfield Courier, Kimberley Daily Independent, Port Elizabeth Telegraph, Warehousemen and Drapers' Trade Journal, Cape Times, Pioneer, Sheffield and Rotherham Independent, &c., have been received.

Medical Diary for the ensuing Week.

Monday, August 4.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

Tuesday, August 5.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Wednesday, August 6.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.—Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Thursday, August 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

Friday, August 8.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

Saturday, August 9.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M

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